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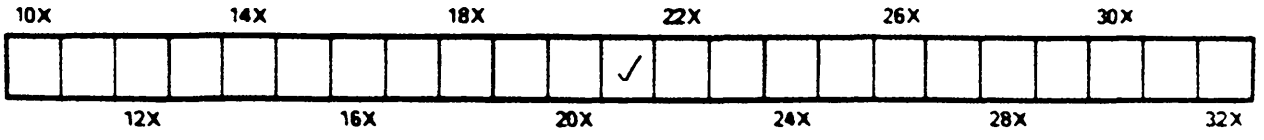

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ORIGINAL COMMUNICATIONS.

EDITORIAL NOTES ON PRACTICAL SUBJECTS.

VULCANITE COMBINATIONS.

BY W. GEO. BEERS, MONTREAL.

The exclusive use of either red, black or pink rubber, as a base for artificial teeth, have their separate objections. Certain objections to the red may be removed by the use of the brown or black, but the color of these is a strong argument against their use with many patients. The pink compounds would seem to fill the void; but all the light shades of vulcanite are inferior in strength and durability to the red or black, having a much smaller percentage of caoutchouc, and a larger amount of earthy matters or metallic oxides, used to tone down the original color. In 100 parts of the best English pink there is a percentage of 60 parts of fixed matter, while in the best red and black there is, in 100 parts, only from 3 to 6 of this objectionable foreign matter. The consequence is, that the worst colors are the best for all purposes. The following is the method I use for obviating the separate objections referred to, while combining any separate excellence they possess.

Put a sheet of red or black rubber in boiling hot water, and when softened, pass it through rolling mills, until it is reduced to half its usual thickness. It is better to cut the sheet in two longitudinal strips previous to rolling, as the rolling widens the sheets, and it is liable to catch and tear at the sides. If, for instance, the case is an upper set, make a paper pattern of the palatine surface of the model,

keeping it at least a quarter of an inch from the pivots of the teeth, and the back part where the plate is to terminate. Cut the red or black rubber to corroespond with this pattern, and place it on the palatine surface of the model, over the air chamber. Now take strips of pink rubber, and pack them regularly under the pivots as the teeth lie in the flask. Cut a piece of pink rubber a quarter of an inch wider in circumference than the red piece, and place it properly in the part of the flask containing the teeth. Pack red rubber around the pivots, and sufficient pink elsewhere to prevent the red oozing through, and wherever it is necessary. The result, of course, is that you have red vulcanite for strength on the upper palatine surface where it does not show, and pink on the lower or visible surface. Nothing makes a handsomer "rubber" set than the two layers combined. In preparing the set for the flask, I always alter the wax to come up high to the back of the crowns of the teeth so that the depression thereby caused in the plaster, will accomodate sufficient pink rubber to prevent any red passing through. The wax model should be smoothened as well as possible, and every precaution taken to avoid much use of the bur when finishing.

I think the above method is better for all purposes than the entire use of pink rubber, as it gives the upper palatine surface of the plate the most durable, and the lower surface the most beautiful.

NEURALGIA FACIEI.

BY G. O. FISET, D.D.S., QUEBEC CITY.

Neuralgia is a disease, by which the nerves of sensation are the seat of very acute pain, confined entirely to the nervous element, and does not exercise any influence whatever on the adjacent tissues, if it did we would have more or less inflammation of those tissues which are supplied by the diseased nerve, therefore, as there are no symptoms of inflammation present, we must infer that neuralgia is an irritation of the nervous system alone, having no power to induce a morbid action of the tissues which it supplies. The vaso-motor nerves being weakened by the disease, become irregular in their action in controlling the circulation, consequently there is a little vascular excitement, attended with an involuntary contraction of the muscular fibres of the affected part; for that reason neuralgia is sometimes called tic-douleureux, which signifies a quick, painful impression.

In neuralgia the pain is violent, and suddenly commences at a certain spot and spreads to other nerve filaments by radiation, it may be of long or short duration, and has a tendency to recur with equal intensity on the slightest provocation.

Neuralgia faciei is an affection of the tri-facial or fifth pair of nerves, being dependent upon a constitutional derangement or a local affection; the pain being generally felt above the orbit, in the cheek, mouth, lower maxilla, and lower teeth. Neuralgia faciei is very often dependent upon malarious fevers, and sometimes is the only symptom of that disease, the paroxysms being periodical instead of occurring only at regular intervals; as it does not come within our province as specialists to treat those fevers, I will not dwell on the subject.

If neuralgia faciei be of a constitutional character, it is produced either by cold, over exertion of the mental faculties, or a perverted state of the digestive apparatus, which causes a sympathetic irritation of the nervous system, predisposing certain nervous centres to morbid action; it may also be caused by close confinement, depriving the blood of the greater portion of its oxygen, thereby preventing the proper maintenance of the equilibrium between waste and repair of the tissues, in consequence, a general debility of the system ensues, which predisposes the nervous element to disease, it being more susceptible as it is the controlling power.

The mitigative treatment consists in the sub-cutaneous introduction of narcotics, warm applications to the seat of pain, and blistering. But the curative treatment would be: change of air, a sufficient amount of exercise daily, and the use of the iodide or sulphate of iron as tonics; however, it is better to administer the medicine in the form of a pill, as the ferruginous tinctures act most injuriously upon the teeth during their passage through the mouth. The narcotics generally used are the tincture of opium, morphia and atropia, their action being more prompt when injected through the cellular tissue than if administered otherwise. The hypodermic injection may be made at any part of the body, and will produce the same beneficial effects as if the medicine were introduced at the seat of pain. There are certain conditions of the system which forbid the use of opium, those are, a high state of inflammatory excitement, inflammation of the brain, or strong determination of blood to the head, by deficient secretion from inflamed mucous membranes, as in the early stages of bronchitis, and generally by constipation of the

bowels.* If morphia be given, the muriate or sulphate are the best to use, and the acetate when fresh; the initial dose being, for an adult man from $\frac{1}{6}$ to $\frac{1}{4}$ of a grain, and for an adult woman from $\frac{1}{8}$ to $\frac{1}{6}$ of a grain. If the dose be continued and increased, it should not go beyond $\frac{2}{3}$ of a grain. Atropia acts upon the eye by dilating the pupil, the best preparation to use is the atropiœ sulphas, its initial dose being, for a woman, 1-80th of a grain, for a man, 1-60th of a grain; in severe cases larger doses may be administered with safety, but the largest dose should not excede 1-10th of a grain, an aperient should also be given at bed time. The effects of atropia remain longer in the system than any medicine of its class. If we compare it with the narcotics, we find that they are all eliminated from the system in a quicker time than atropia. If we compare it with the sedatives, we find the same result. Medicinal doses of atropia of 1-20th of a grain, will produce effects that will not subside in less than twenty-four hours, and frequently they last for double that time. Caution, therefore, needs to be used in administering this remedy, and doses must not be repeated too often, otherwise the system may be overwhelmed by the accumulated influence of one dose given before the previous doses have sufficiently passed over. Unless patients can be very closely watched, it is better not to repeat the doses oftener than once in twenty-four hours.†

Neuralgia faciei may also depend upon a local affection; that is, it may be caused by periostitis, exostosis and the presence of necrosed roots in the alveoli, the two latter diseases producing inflammation of the periosteum by constant pressure, inducing an irritation of the fifth pair of nerves and giving rise to neuralgic pains, which will not be relieved until the proper treatment is adopted for the cure of the local affection, or by the removal of the cause. It very frequently happens that a patient when suffering from neuralgia faciei will point to a perfectly sound and healthy tooth, as what he or she thinks is the primary cause, for the pain is felt as if originating from that organ; however, we must not listen to what the patient says, but proceed to determine whether there are any of the teeth affected with periostitis or exostosis, or if there are any necrosed roots present in the mouth. If we find a case of periostitis, the tooth or teeth affected should be cured by antiseptic treatment. But if on the contrary

* U. S. Dispensatory.

† New York Medical Journal.

we find an exostosed condition of the fangs, or any necrosed roots, the only treatment left is immediate extraction. If there are no diseased teeth or roots present in the mouth, and the neuralgia is constitutional, a sympathetic irritability of the nerve filaments of the pulp of one or more healthy teeth is sometimes produced, and is felt as if originating from those organs. The same phenomenon occurs also if the disorder has been caused by the presence of diseased teeth or roots, and often after the removal of the affected organs; the paroxysms of pain often recur as if proceeding from sound and normal ones, with as much violence; that may also depend to a certain degree upon a natural tendency of the fangs of some teeth to become exostosed, which very often manifest their symptoms in that way, as well as by the bulbous enlargement of their fangs, their crowns being quite sound.

CAUSES OF THE DISCOLORATION OF TEETH.

BY G. C. DABOLL, D.D.S., BUFFALO.

Read before the Eighth District Dental Society, January 19th, 1870.

A tooth rarely becomes discolored unless it loses a part or the whole of its vitality. The pulp, with its arteries, veins and nerves, is the chief source of life, and with its destruction goes the entire circulatory system of the tooth. To get at an intelligent idea of this subject, we will take into consideration the anatomy of the organ in question. Dentine or ivory forms by far the most abundant constituent of a tooth, constituting the whole of the root, body and neck, with the exception of a thin covering of enamel—the crusta petrosa—and pulp. In texture dentine is harder than bone. According to Mr. Nasmyth, ivory presents three varieties; the first consisting of a "regular series of fibres and cells" called fibro cellular, and regarded as the most perfect kind of ivory, forms the greater portion of the teeth of man. The second variety presents vertical canals traversing it, found particularly in the teeth of fish, and is called canalicular. The third variety exhibits little corpuscular bodies scattered through it, and is called corpuscular ivory. This is supposed to exist in the human tooth only in a state of disease. From later experiments by Mr. Nasmyth, it appears that the structure of the dentine, like that the pulp, is essentially cellular and fibrous—that is consisting of cells and fibres. Anatomists generally deny the vascularity of the dentine, but specimens that have fallen under the observation of several

prominent members of our profession seem to show conclusively that it has a circulation; under the microscope vessels charged with blood having been seen within the very substance of the bone. Mr. Tomes makes three stages in the *formation* of dentine: the areolar, the cellular, and the linear. From this third stage he thinks the regular continuous permanent tubes of dentine result.

The enamel covers the crown, and is the thickest upon the grinding surfaces. The color is a pearly white, and it is very brittle. The different shades of color we see in the teeth are due to the color of the dentine, and are simply the reflection through the enamel. A tooth is always the lightest on the point, and the deepest in color at the gum where the enamel is thinnest. We observe in the pearly white teeth when decayed, that upon removing the softened dentine, the surface of the cavity will be as white as the enamel; if the tooth is of the yellow class, the cavity presents that color.

The tubuli radiate from the pulp chamber to the coronal surface, and in these we find the nerve filaments, and while it is doubted by some, it is asserted by others that these are endowed with a vascular system like that of the pulp. This is certainly possible, when we consider that filaments have been observed the 100,000th of an inch in diameter, while the tubuli are about the 10,000th of an inch in diameter.

A tooth always shows by its color the loss of its nerve centre. The change in color will be in a greater or less degree, depending upon the manner of its death. We see cases in which the pulp appears to have dried up or wasted away, and under such conditions the least change is discernible in the external appearance of the tooth; the nerve filaments drying up in the tubuli, and only giving the enamel a lifeless opaque appearance as an indication. The greatest change is observed in those teeth in which the pulp has died from violent inflammation, and is due, undoubtedly, to the congestion of the tubuli with blood, giving the tooth a dark appearance, which becomes more intense as the blood undergoes the process of corruption and decay. The most violent and radical changes in color take place in the teeth of young persons, when the tubuli are not only larger but longer, the coronal ends sometimes terminating in the enamel; in later life these are contracted and filled up with solid deposits.

The congestion of the tubuli is undoubtedly the cause of discoloration, as it is commonly seen by us, and this is demonstrated by the

fact that when the pulp is removed while in a normal condition and the chamber immediately filled, allowing no opportunity for the secretion of matter of any form, we have very little if any effect upon the color, as is seen in the other conditions mentioned heretofore. Another proof is found in the use of agents for restoring the color, or bleaching as it is termed. By the use of a certain class of agents, we produce an effect very quickly. In the strength they are used, such an effect could only be produced upon organic matter, with which the tubuli are filled. The discolored spots seen occasionally on the surface—or apparently just beneath—we ascribe to the absorption by the enamel while in a softened or imperfect condition, of organic matter. These we think always form in childhood, and just after the eruption of the teeth, at which time it is not unusual to find imperfections in the surface. In children that are not taught cleanly habits in regard to the mouth and teeth, food being allowed to secrete and become corrupt about the teeth, this condition would be very likely to excite the condition of their being as just mentioned.

I call to mind several instances in my own practice, in which the six year old molars present on the crowns and buccal surfaces discolored spots, where the evidence of imperfection when they were erupted is very complete and satisfactory. The yellow and dark bands sometimes seen traversing the surface of the incisors, I think are due frequently to the accumulation of tartar while the tooth is being erupted. The tooth is in a softened condition. The tartar becomes yellow and dark with accumulated secretions and age, and the enamel in its sensitive state absorbs enough to leave a permanent record for the future. The color seen at times on the teeth of persons addicted to the use of tobacco in chewing or smoking, is a stain which in time becomes exceedingly difficult to remove. In the case of smokers, like the manufacture of stained glass, it is burned on. These are all phases of this important subject, which in their different effects are troublesome cases to contend with. Of these latter one need not, however, become discouraged, as there is a sure cure in the "Chinese tooth oil," which a patient showed me a few days ago, and which he assured me made his teeth as white as he could wish them in five minutes. He acknwledged, however, that it startled him to find that it changed the color of *Litmus* paper still qnicker, and he concluded not to try it again on his teeth.

AN ESSAY.

BY A. C. STONE, M.D.

GENTLEMEN:—It is with a proper mistrust of my own ability to afford you instruction that I venture to address you on any subject at this time. It is not with any conviction that I shall render a service that might not be better given by others, but rather from a sense of duty that the humblest member of society owes to himself and to those with whom he may be associated, always to use at all times his best endeavor to do what he can to promote a common object.

Our society was not, I presume to say, formed for the purpose of displaying mere theoretical knowledge, but rather that of interchanging the practical results of common experience.

The subject chosen for this evening is the management of children's teeth, both of the first and second dentition, and the duty of dentists and parents in the premises. It is not only the duty but the true interest of every dentist to as far as possible, educate his patients to perform properly their own part in reference to their teeth, and those of children placed under their care. But it is not to be expected that patients will enter upon the study of dentistry either for the benefit of dentists or themselves, and it is therefore necessary for the practitioner himself to induct them into so much knowledge as shall be sufficient to smooth their road, and his course.

Beginning at first principles and with special regard to the comfort and future welfare of children, the patient should be initiated into the sublime mysteries of the first dentition. It will soon be found that the popular ignorance in regard to the formation of the human body is in no case more manifest than in regard to the teeth. For instance, not one in a thousand (and among that number I am sorry to say are included some dentists) is aware that at birth the jaws of a child contain the rudiments, more or less developed, of 52 teeth; 20 temporary and 32 permanent.

Let it then be understood by the parent, that at the time of birth each child is endowed with the bodies of ten teeth in each jaw, which begin to make their appearance through the gums at about the sixth or eighth month. That the obtaining of the full set of temporary teeth varies in time up to two or three years, and that during that time the germs of the permanent teeth are being steadily developed, ready to fill their places when their work shall have been accomplished. If it shall then be understood that the regular and proper

development of the permanent teeth depends somewhat upon proper care being taken of the temporary set, the necessity for the most careful observation and attention will at once be made obvious. Of the temporary teeth there are four incisors, two cuspidati, and four molars in each jaw, which are finally replace by the permanent set, beginning at about the seventh year, and continuing until about the twelfth or fourteenth year, when the permanent set is complete, with the exception of the wisdom teeth. The permanent set consists of four incisors, two cuspi .ti, four bicuspids, and six molars in each jaw—thirty-two in all

Having thus been made acquainted with the names and numbers of the teeth, it is necessary to instruct as to the manner in which the permanent set succeeds the temporary. The question is often asked why men and and animals require two sets of teeth, and not two sets of nails, hoofs, and claws. It is a query that but few persons are at first prepared to answer; but a little reflection will solve the problem, and that is, that the teeth alone, of all the tissues and organs of the body, are the only ones that do not increase in size or bulk after they are once developed—that is to say that the crown never enlarges; the root is sometimes enlarged by disease.

At about the age of three or four years the jaws begin to increase in size and length, and it seems to be a very wise provision of Nature that a new set of organs of corresponding size and of sufficient number to fill the room made for them, should be given.

The jaws increase in length behind the temporary teeth, pushing these teeth and that portion of the jaw which contains them forward without changing their relative position to each other, the front of the jaws enlarge only as the teeth of the permanent set make their appearance; if any teeth of the first dentition remain in their place until mature age, the jaw around them will also remain of the same size that it was in infancy, as is shown by their having no spaces between them. Sometimes in the case of dwarfs all or nearly all the teeth of the first dentition remains.

The germs of the permanent teeth (with the exception of the molars) are situated under the temporary, and in the process of their growth absorb the roots of the temporary ones until the latter are driven out of the gums, and their places taken by the permanent teeth, in the following order :—

At about the sixth year the first permanent molars make their appearance above the gums at the back of the temporary teeth, where

the elongation of the jaw has given sufficient room. These first molars are so frequently mistaken for a portion of the temporary set, and such unhappy consequesnces sometimes result from this error, that the attention of parents should be particularly directed to this point. These teeth are sometimes permiteed to go to decay from want of care, and under the impression that they are the temporary teeth. Sometimes they are extracted for some slight cause, when the whole arch of the jaw becomes imperfectly developed, and the most painful and tedious cases of irregularity are often the result. These teeth are the pioneers and guides of the new set; they stand as landmarks in the jaw, and their extraction or loss by any means may be compared to the capture of the outlying pickets of a sleeping army, in disastrous consequences.

The first molars should be preserved if possible. There is no estimating the value of a tooth. The illustrious Don Quixote had a very good idea of it when (after one of his hard-fought battles, in which he lost a number of them) he says to Sancho Panza, that he had rather they had torn off an arm, provided it was not the sword arm. He then adds:—"For thou must know, Sancho, that a mouth without teeth is like a mill without a stone; and that a diamond is not so precious as a tooth." However, that was long before tl e days of rubber plates; he might possibly change his opinion were he living now.

Another point worth notice: These teeth—that is, the first molars—seem to be placed in the exact position where they are most needed, as the temporary teeth are falling out and the office of mastication must be performed somehow, and falls naturally upon these powerful grinders so admirably placed to perform their allotted labor.

Sometime between the ages of six and nine years, according to the health and strength of the child, and after cutting of the first permanent molars, the lower central incisors make their appearance. Next come the upper central incisors; then the lower lateral incisors, and next the upper laterals. This is the usual order, although it sometimes varies. Nature now takes a short period of repose, lasting some two or three years.

Between the ninth and fourteenth years the bicuspids and canine teeth make their appearance, generally in the order mentioned. Finally appear the second molars, soon after the canines, or at about the age of fourteen, and then the set is complete, with the exception of the wisdom teeth, which are cut anywhere from eighteen to sixty

years of age—sometimes not at all, when there is no room for them in the jaw.

During the period of shedding the teeth, if a mother has the least pride or ambition that her children shall have beautiful and regular teeth, it will then exhibit itself, even though she may have been before careless in the matter. It is above all necessary that nature should have fair play, and not be retarded, driven, or misled in her movements by any carelessness of treatment which shall permit disease or irregularity in the temporary teeth to operate against the regular and natural appearance of the permanent set.

Parents should be cautioned with regard to the too early extraction of the temporary teeth, since if they are drawn before the permanent ones are ready to take their places the jaw will not sufficiently lengthen, and an irregular and deformed denture will be the result. If they seem to need professional attention they should be placed under the care of the dentist. I consider it quite as necessary to preserve the teeth of the first dentition in their places while they are needed, and take as much care of them as of the second set. They should be treated in all cases in a similar manner. If they are decayed fill them, if the nerve is exposed destroy or cap it, and then fill. If they have gum boils treat them as you would teeth of the second set. Of course you will not always succeed in healing the fistulous opening, but that is not of much consequence; relieve the pain if possible and retain the tooth. A gum boil is not of much account in children unless it interferes with the general health, and this must be left to the judgment of the dentist. The fears of parents sheuld have nothing to do with it.

To the miserly skinflint dentist who, rather than lose his fee of half a dollar, will pull a child's tooth two years too early, without good and sufficient cause, the above advice will be lost. But to him who, being a dentist, does not forget that he is also a man, and who does not cease to remember that to alleviate pain and prevent deformity is the true destiny of his calling, and that his recompense therefor is only secondary, it will carry something of the intention with which it is given. The responsibility then devolves upon the dentist of impressing upon the mind of his patient the great importance of not tampering with the extraction of children's teeth, and also that the teeth of the first dentition, as well as those of the permanent set, should be kept perfectly clean, in order to preserve them in a healthy condition as long as they are required in the mouth.

Let them be instructed that this attention and care should not alone be confined to the permanent teeth, which are better able to bear the dangers to which they are exposed; but that the temporary set depend greatly for existence upon the attention which they nearly always fail to receive.

All that is necessary to do is to be as scrupulous about keeping the teeth clean as the face. If parents could be made to understand how much pain could be prevented and spared their little ones, and the long and wakeful nights they are often compelled to pass, the many dollars to be expended for regulating and filling teeth, and in fact the thousand ills that might be avoided by timely attention, we are sure that they would be thoroughly awake to their duty.

PROCEEDINGS OF SOCIETIES.

DENTAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

A meeting of the above voluntary Society was held in the city of Quebec, on January 20th and 21st, 1870.

Present—A. Bernard, J. McKee, P. Baillargeon, H. D. Ross, M. Pourtier, W. R. Patton, J. A. Bazin, J. H. Webster, J. Turcot, —. Casgrain, G. O. Fiset, W. G. Beers.

The President in the chair.

Mr. Beers gave notice of motion to change the name of the Association, as it was frequently confused with the Board of Examiners.

The President and Treasurer were appointed a committee to arrange for the collection of specimens of morbid anatomy of the head and other parts relating intimately to dental surgery; to be kept alternately six months in the cities of Quebec and Montreal.

The President then called upon M. Pourtier to read his essay on "Dental Hygiene." An excellent English translation was read by W. R. Patton, and afterwards M. Pourtier read it in French.

The subject was opened for discussion.

P. Baillargeon referred to the use and effects of sugar upon the teeth; and especially to the fact that confectioners, as a rule, lose their teeth early. He believed the sugar prepared by confectioners to be much more deleterious to the dental structure than the sugar from the refinery. He thought the coloring matters of candies had an injurious effect.

J. McKee cited the West Indian and Southern negroes, who eat

largely of sugar, and yet whose teeth are unsurpassed for durability. He held the same opinion as Dr. Baillargeon, viz.: that confectioners preparations of sugar acted most injuriously.

J. A. Bazin had had considerable experience in connection with confectioners who had lost their teeth early. He mentioned a number of cases in his own practice, and believed that the temperature of the sugar had greatly to account for any effect it may have upon the teeth. Confectioners and their employees were in the habit of tasting boiling sugar to test it, and many of them ate it because of its superior taste. He related a case of a young man nineteen years old, whose business was to test boiling sugar, the enamel of whose teeth at the margins was entirely destroyed.

W. G. Beers does not believe that sugar has any immediate or direct effect upon the teeth. If used moderataly, he thought the principal secretions of the mouth, which are normally alkaline, would have the effect of neutralizing any acid that might form; but if used in excess, the sugar then fermented in the mouth, and secretions were produced which disintegrated the enamel and dentine. Acetic acid is formed in the mouth, which has a strong affinity for the tooth structure.

W. R. Patton said that sugar, like starch, was one of the principal constituents of our most nutritious food, and that if the mouth was properly cleansed, it would have no harmful result.

H. D. Ross believed that even sugar in excess would have no baneful effect, if proper attention was paid to hygiene. It nourished the tissues, and was, he would submit, a necessity for healthy action of the nutritive vessels.

J. A. Bazin inquired the cause of the pain when a grain of sugar is taken into a sensitive cavity of a tooth.

A. Bernard believed it to be a chemical cause; that an acid was immediately produced, and had an instant effect.

W. G. Beers believed it to be altogether mechanical, similar to the effect of a grain of salt, which could not produce an acid.

J. McKee thought it was both chemical and mechanical.

J. H. Webster instanced an experiment he had made, by keeping teeth in a syrup of white sugar for over ten years. He found the teeth as perfect as ever. He believes sugar to be a preservative.

P. Baillargeon said the normal condition of the buccal secretions was preservative of the teeth; but that fermentation of sugar, or any foreign substance, changes their character, and hence the cause of caries.

W. G. Beers doubted if Dr. Webster's test was reliable; as the syrup in a bottle would always remain sugar syrup, in spite of the teeth; but in the mouth, bathed by the secretions, it could produce changes which would destroy the structure. Combined with a small amount of alkali, which is found in the mouth, sugar will dissolve phosphate of lime.

H. D. Ross said the coloring matter of candies was frequently carbonate of copper, vermillion, red lead, &c., which in themselves are deadly poisons.

Dr. Bernard made an interesting resume of the discussion.

H. D. Ross then read an essay on "Irregularities," and a lively discussion ensued relative to some portions of it; but as it was almost entirely conversational, and branched off into many physiological and pathological questions, we regret that we cannot give any report of this part of the proceedings.

In the evening the Quebec dentists entertained their confreres at the Russell House, in the hospitable manner for which the citizens of the ancient capital are celebrated.

JANUARY 21ST, A. M.

A number of models of peculiar cases of Irregularity were presented by H. D. Ross, J. A. Bazin, M. Pourtier and W. G. Beers.

The subject of "Filling Teeth" was then opened.

J. A. Bazin believed in rapid wedging. Found great convenience from the use of hoe excavators for preparing cavities in all positions. Often uses a common excavator to advantage as a plugger, in filling small cavities. He generally begins filling with soft foil, and finishes with adhesive. Thinks that there is too great a rage for adhesive foil.

W. G. Beers inquired if Mr. B. had seen any evil results from rapid wedging.

J. A. Bazin had once a case of exfoliation of the transverse process of the superior central incisors, about three-eighths of an inch long, which was occasioned by the too rapid use of a wooden wedge. He does not altogether ignore rubber for separating.

W. R. Patton uses oxy-chloride of zinc in very sensitive cavities, and in a week or ten days, finds that the sensitiveness has passed away, and that the excavating can be completed and the cavity filled with gold. He referred to the rubber dam; uses it in strips of from five to ten inches square; placing a towel around the neck of the patient, and allows the saliva to flow out of the mouth. Ties the

rubber down with waxed cord; generally embraces with the rubber a tooth on each side of the one to be filled.

H. D. Ross explained his manner of filling approximal cavities.

P. Baillargeon thought that after rapid wedging, extreme tenderness of the tooth would be found to exist after it was plugged. He feared the results from all severe measures upon tender teeth.

J. H. Webster was particular to adapt means to circumstances, and met with cases where he would not use more rapid wedging, than the patient could produce by working between the teeth cotton wool, from day to day. He uses Abbey's foil; and has used it a great many years.

M. Pourtier has a high opinion of adhesive foil, and can use Johnson's No. 3 and 4 in all cavities.

J. McKee described his use of creasote and other articles for obtunding sensitive dentine.

J. A. Bazin uses White's foil; also Hubbard's.

W. G. Beers related a case of a patient who invariably fainted after the first few scrapes of the excavator. He tried chloride of zinc, creasote, &c., but all of no avail. After the fourth trial, he used Rhigolene spray, and succeded in excavating the cavity without any trouble. Had that failed he intended to let the patient faint, and continue working notwithstanding. He read a paper on "The use of the Hand Mallet," and exhibited a leaden mallet, and a number of instruments presented by Dr. W. H. Atkinson. He also presented his improved duct compressor, which has the advantage of closing both parotid ducts at the same time, without the compressor interfering in any way, while both cheeks were kept pressed outwards during the entire operation.

Dr. Bernard said he had listened attentively and enjoyed the remarks of the several speakers. He regretted that the time was so short, and the discussions necessarily so digressive, but he doubted not but that every member of the Association had been benefitted by the reciprocity of opinion, and the mutual disposition to reveal every particular method of operating in which individual members felt they excelled. It was gratifying to see the spirit of isolation and secrecy dead. He hoped that the members would always prepare themselves beforehand for the various discussions.

The meeting then closed by singing "God Save the Queen."

WESTERN DISTRICT DENTAL ASSOCIATION.

BY CHAS. P. LENNOX, SECRETARY.

The second meeting of the above Society was held at Dr. Stone's, in London, on the evening of the 9th of March.

There was a good representation of the dentists of the district present. Several topics of interest were discussed. An interesting essay was read by Dr. Stone, subject "The Management of Children's Teeth." The evening was very agreeably spent until a late hour, when we adjourned to meet at the call of the Chairman.

After the meeting was over we were requested to indulge in a cup of coffee with our esteemed host and hostess, which we did with pleasure, and separated.

SELECTED ARTICLES.

INTERDENTAL SPLINTS FOR FRACTURES OF INFERIOR MAXILLA.

BY GEO. L. FITCH, DENTIST.

Interdental splints in various forms have been used for many years, but owing to their complexity or to the difficulty that any one but a skilled mechanic would find in manufacturing or applying them their use has been limited. Undoubtedly the best of these appliances has been the vulcanite splint used of late years, but the objection to this is, that none but a dentist could apply it, and but few dentists would be able or willing to take the responsibility of treatment in these cases.

Prof. F. H. Hamilton, M. D., many years ago proposed the use of gutta percha, a wedge shaped piece of this material being softened in warm water and placed between thee molar teeth on each side, and then moulded around the crowns of these teeth with the fingers, while a bandage around the chin and over the head completed the dressing. The jaws being held apart by the gutta percha, food could be introduced between the front teeth. Other surgeons have followed in his track with the use of gutta percha, but the jaw, with all the different plans, was held firmly in one position.

The advantage which vulcanite splints have had, is in allowing the patient the use of the jaw while the broken fragments are still

held firmly in opposition; their disadvantage, as stated above, the difficulty of applying them. I have recently succeeded in applying gutta percha to the same use as vulcanite, and a brief description will, I trust, put interdental splints into the hands of every man in the profession. Take a piece of dental gutta percha of length sufficient to reach around the dental arch as far back as the second molars on either side, and of width sufficient to reach one or two lines below the crowns of the teeth, resting on the gums when it shall have been moulded to its place. As this variety of gutta percha comes in thin sheets, two thicknesses may be used, a little heat and pressure with the fingers converts them into one. Now, the broken fragments being held properly in place by an assistant, dip the gutta percha into water heated to a little below the boiling point, and while it is softened by the heat, mould it gently around the teeth and gums; as it hardens quickly, possibly it may have to be dipped the second time in the hot water before it can be nicely and smoothly adjusted. Allow it to remain in its place a moment or two, and then withdraw it and dip in cold water, and if there be any superfluous portions they may be clipped off with the knife or scissors. Next take two pieces of iron wire, a little less than ordinary telegraph wire in size, (and these should be previously prepared) and bend them into the shape of a horse shoe, or more like the letter V, with its angle cut off somewhat. Flatten out one end of this wire until it is about two thirds as wide as the splint where it goes over the molar teeth; heat this flattened portion a little and lay it on the gutta percha; the flattened portion should extend as far as the end of the splint and as far forward as the angle of the mouth, through which it should protrude, and then bend backwards on a line with the outside of the cheek, and make it (the wire) as long on the outside of the mouth as on the inside. The wire being somewhat heated will readily press its way a little into the splint, and with a thin piece of gutta percha placed over it and smoothly plastered down, our design is completed. The wire outside of the mouth may be bent into different shapes so as to be more readily fastened to the piece of leather or pasteboard which goes under the chin. This latter piece in this, as in the vulcanite splint, being made to fit the under surface of the jaw, and securely fastened to the wire on either side. If I have succeeded in making my description plain, I think any surgeon could in this manner easily construct an interdental splint equal in every respect to vulcanite, and at an expense not to exceed twenty-five cents. The

gutta percha exerts no deleterious influence in the mouth any more than the vulcanite does, and it may be taken out and washed frequently to insure cleanliness. Dental gutta percha may be had at any dental depot, and of the majority of dentists throughout the land.—*N. Y. Medical Gazette.*

SENSITIVE DENTINE.

In those cases where the most exquisite torture is inflicted on a patient by the excavator, which could not be relieved immediately by the usual remedies, I have found the following practice very satisfactory both to patient and myself:

Cleanse the cavity gently with tepid water, and remove so much of the decay as can be with the willing consent of the patient. Then plug with the "osteoplastic," or "ox. chlo. zinc." The plug may remain from a day to three months. In some cases one day helps the matter very much. If the dentine is hard, a day is as good as a week. But if it is soft then two or three months is better. In the latter case see that your patient uses a diet containing vitalized lime salts in abundance. By vitalized I mean those salts which are found in vegetable or animal tissue naturally.—*Missouri Dental Journal.*

A NOVEL CASE AND TREATMENT.

BY DR. S. J. COBB, NASHVILLE, TENN.

A lady, who was so unfortunate as to lose, at the age of twenty, all of her upper teeth except the three roots of the second left superior molar, over which she has worn a plate for ten or twelve years, called upon a dentist a short time ago for the purpose of having her plate refitted, and he very naturally suggested the necessity of removing these loose roots from the mouth, which she readily consented to, and in his efforts to remove them pushed them up into the antrum. The operation becoming a little painful to the patient and frightful to the operator, was no longer persisted in, but in about eight hours from that time they were blown out at the nose.

I presume the floor of the antrum covering these roots had been necrosed and partially exfoliated for two or three years, from the fact that she has since called upon me to operate and treat for diseased antrum. In diagnosing the case, I found from necrosis and

exfoliation not only the floor of the antrum covering these roots destroyed, but a portion of the ethmoid and inferior turbinated bones, making an opening sufficiently large for these roots to pass into the nasal fossa, from which they passed out at the nose. I also found there had been a constant, copious fetid discharge through the nose for five years, following an attack of erysipelas of the face.

In operating I removed all of the necrosed and exfoliated bone, after which I passed well up into the parts a small piece of sponge thoroughly saturated in two parts carbolic acid and one of tinc. of iodine. I then diluted with soft water the acid and iodine solution, and syringed the parts well and sent my patient home, with directions to use as a wash for the parts, the compound of acid, iodine and water, also to keep the parts well cleansed with tepid water, and take in the way of general treatment, ten grains of blue mass, followed by one or two doses of citrate of magnesia, after which to take three times a dose of twenty drops of syrup of the iodide of iron. For two or three days after the operation the discharge slightly increased as I anticipated, having used the strong solution of acid and iodine for the purpose of producing a sufficient sloughing to bring away such small detached pieces of bone as might remain somewhat attached to the soft parts. In the course of a week the discharge commenced decreasing rapidly, at which time I fitted a plate and teeth to the jaw, covering the part well for the purpose of keeping particles of food and other matter out of the antrum.

At the end of twenty days treatment the discharge ceased entirely, and upon examination the secretions were found to be as healthy as they ever were.—*American Journal of Dental Science.*

INSERTING THE GOLD.

CASE.—Anterior approximal surface of the right upper third molar. Dovetail slot cut from the grinding surface of crown up to the margin of the gum. Soft wedge between the teeth to compress the gum. Rubber dam not required.

Place a cylinder of unadhesive gold, whose diameter is equal to the bucco-palatal diameter of the cavity, in the bottom of the latter, one end of which shall press against the posterior wall of the cavity and the other end against the surface of the second molar; compress this cylinder laterally, and place another by its side; now with a

foot-shaped plugger having serrations condense with the mallet, thoroughly.

Put a *very thin* section of Morgan's plastic gold upon the condensed surface and mallet again.

The foundation which is now laid will not be likely to move, if it is sufficiently condensed. Too much care cannot be exercised in this respect. It is of the greatest importance that the cervical margin of the plug should be *perfect*. No after manipulation can correct a faulty margin in this locality.

The cavity described can be better plugged with two different sizes of foot-shaped pluggers than with any others. They should have shallow but very sharp serrations. The toe of the instrument should be slightly rounded and polished, so as not to abrade the dentos* as it slides against it.

This cavity will be best plugged with heavy or thick foils; No. 30 may be used in strips one-eighth of an inch wide and one inch long. No. 60 in squares, not much larger than the diameter of the cavity. Take up No. 30 with the pluggers in the middle of the strip or at the ends, indifferently, and attached to the previously condensed gold. Anneal each strip by carrying it *over* the alcohol flame. Condense *single* thicknesses in succession against the sides of the cavity, and *particularly* against the margins, so as to make them as *perfect* as possible. In the centre we may fold or crumple it up indifferently remembering that with increased thickness under the plugger we must have increased mallet force.

We can use No. 60 alternately with No. 30, if we choose, and using two or three squares of the former at once, as they will readily adhere to each other and to the previous surface if properly condensed. If the margins of the cavity have heavy walls we can safely use No. 60 at the margins, though I can see no particular advantage in this heavy No. in *this* cavity. We don't wish to keep one portion fuller than another; it will be better to keep a nearly level surface. At any rate do not fill the interior of the slot more rapidly than you do the marginal surface. Carry the gold well out beyond the surface of the tooth, so as to leave plenty to file off and work down afterwards. Keep the shaft of the plugger paralled with the perpendicular margins of the cavity. Let the foot-shaped plugger slide along these surfaces and carry down the gold strips. Always alow the strips to

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Tooth substance.

lie between your plugger and the dentos, thus securing more *perfect adaptations.* If there should be any overlaping enamel, when it is reached we must be careful that we do not arch over or bridge the under cut. Take the curved hatchet plugger and carefully manipulate into the corner or crevice single layers of Nos. 15 or 20 foil, using hand or mallet pressure, according to safety, being sure to thoroughly *support* this overhanging enamel, with a solid foundation.

The gold plug should be well carried out beyond the grinding surface of the tooth, so as to insure sufficient thickness for subsequent removal for the purpose of finishing. Be careful not to draw in the approximal surface of your plug, as you build up to the triturating surface. If it is kept squarely out *all the time*, it will be stronger and bear the force of mastication much better, than it will, if you build it out of the slot. In the latter case it would be more likely to scale off. When enough gold has been used, go over the whole surface with a very small, round plugger, having only enough serration to prevent the instrument from slipping, so as to thoroughly condense the gold and obliterate the indentations. Now file down to nearly the finishing surface and condense in the same manner. File again, and then polish with abundance of pumice stone and a stick. After getting a good surface, use prepared chalk and alcohol with a stick.

I expect in a few weeks to have an instrument, which will revolve a burr one thousand times in a minute. With this I intend to finish my plugs in very many localities.—*Missouri Dental Journal.*

NECROSIS OF NEARLY THE WHOLE OF THE LOWER JAW.

Egbert H., aged 22, from Aylesbury, was sent to Mr. Heath by Mr. Ceely, with necrosis of the lower jaw.

In August, 1868, he had typhus fever in Walsall Union, and during the attack the face became swollen, and discharged both externally and into the mouth. His teeth were all loosened, but none were extracted. In December he was passed on to Aylesbury, and came under Mr. Ceely's care.

On February 24, 1869, patient was admitted into University College Hospital, under Mr. Heath's care. The right side of the lower jaw was immensely swollen, and two inches below the angle was a sinus through which a probe passed up towards the base. Another

sinus existed below the right canine tooth, and there had been a third below the left angle which was now closed. The teeth were all more or less loose, and there were several openings in the gums, from which a most offensive discharge passed into the mouth. The man was well nourished and otherwise in good health, though he had when a child suffered from hip disease. On the day of admission, under chloroform, Mr. Heath extracted the molar teeth of the right side which were loose, and, having divided the gum, extracted a very large sequestrum, comprising the right side of the body of the jaw from the canine tooth to the angle, and containing the mental foramen. The hæmorrhage was very free, but was checked by plugging the shell of new bone from which the sequestrum was taken. The plugs were removed on the second day, and the mouth syringed out daily with disinfecting lotion.

On March 3, 1869, under chloroform, Mr. Heath cleared out some small fragments of necrosed bone left in the right angle of the jaw, and then proceeded to remove the necrosed portion on the left side, which extended as far as the second molar tooth. Mr. Heath attempted to save the incisor teeth, it appearing at first that the alveolus of that part of the jaw was not involved. It proved, however, that the disease had affected the whole thickness of the bone, and the teeth were necessarily sacrificed. Upon removal of the sequestrum there was left a complete framework of new bone, with a deep groove extending from the right angle (which was quite hollowed out) to the second molar tooth of the left side, The mouth bled freely, but this was checked as before by stuffing with lint. The patient made a good recovery, and was able to return to the country in a week, the discharge having almost entirely ceased, and there being a deep groove in the new structure of the jaw from which the sequestrum had been extracted.

On June 16 the patient returned, there being a portion of diseased bone on the right side. This Mr. Heath extracted, under chloroform, with some difficulty through the mouth, when it was found to include the angle and a great part of the ramus of the jaw. From this operation also the patient made a speedy recovery, and returned to the country, and was not seen again by Mr. Heath until October, when he returned with yet more necrosis, involving the remainder of the right ramus. This was removed with difficulty on October 30, and the man has not since suffered from pain or discharge, so that it seems that the whole of the dead bone has now been taken away.

Perhaps the most singular feature in this case is the fact that the man has now (December) as perfect movement of the jaw as if no disease had existed, notwithstanding that at the last operation the whole of the right condyle was removed entire with about a third of the ramus. The repair has, in fact, been as complete as possible. When we saw the patient five weeks after the last operation, there was some fullness and prominence about the right angle of the jaw, and when the mouth was widely opened the lower jaw was drawn slightly to the right side; but otherwise all the jaw movements were perfectly performed without any pain or inconvenince, a deep groove in the gum, reaching from the right angle to the second left molar, alone remaining to show the former seat of such extensive disease.—*London Med. Times and Gazette.*

EFFECTS AND TREATMENT OF SALIVARY AND MUCUS DEPOSITS.

BY LOUIS AUGSPATH, D. D. S.

There is, doubtless, in the whole range of causes nothing which exerts a greater influence upon the profession of dentistry than the neglect, on the part of the mass of mankind, of proper care of the teeth and mouth.

A want of care is beyond all question, the source of most of the diseases and evils to which the teeth are subject. There is, probably, nothing which more properly claims the attention of the intelligent dentist than the subject of deposits, including the calcareous formation usually denominated *Tartar, and the Green and Brown Stains*, and all those impurities on the teeth which are produced by neglect, tobacco and other similar causes.

It is well understood that there are different varieties of tartar, characterized by color, composition and consistency, but all produced by the same cause and resulting as a precipitate of the saliva, in connection, possibly, with deposits of the mucus.

Persons of all ages are subject to deposits of tartar, although it seldom appears before children have erupted their six year molars, but continues to be formed throughout life; and often to such a degree, that teeth may be found nearly if not entirely covered with it, especially in persons who have been repeatedly and severely salivated, or are of a dyspeptic or scrofulous diathesis. In some persons tartar is deposited throughout life, while others are exempt until some con-

stitutional change takes place when it is rapidly eliminated. This deposit in its direct action on the tooth, in regard to health, is innocent, as it is an exterior formation on the surface of the tooth, and serves rather to prevent than to produce decay. On the other hand it is well worth the notice of the dentist and should never be allowed to remain, as from its tendency to increase on the most protected points, it will naturally force the gum to recede, the alveolar process to absorb (where there is pressure there is absorption), and if left unmolested will not only loosen the teeth but finally cause them to drop from their sockets.

Green and brown stains, doubtless, are caused exclusively by the mucus. This stain is not, like tartar, a formation on the tooth, but enters into the composition of the enamel and tends to produce decay and the destruction of the entire tooth. To this disorder young persons are especially liable, as the enamel is of a lower order of density and the acids of the mouth will therefore act upon it with greater rapidity than in more advanced age.

As a general rule the anterior superior incisors are most liable to be attacked by this disease, owing to their position in the dental arch, where the saliva is only sparingly retained, and where the cleansing if not polishing action of the tongue is almost entirely excluded. This will to some extent account for the reason this disease selects the labial surface in preference to any other.

The remedy for the former of these diseases (tartar) is purely mechanical, but for the latter (stain) it may be necessary to combine the mechanical with therapeutic treatment.

Giving attention first to tartar, I shall endeavor to explain the modus operandi in relieving the teeth of these disagreeable and destructive affections. There are two methods of removing salivary calculus from the teeth: the one by chemically decomposing the deposit by the use of some acid, the other, mechanical, by scaling and scraping with appropriate instruments. The former should never be resorted to, as the chemical action of the acid does not stop with the decomposition of the calcareous deposit, but by the same affinity attacks the tooth itself, and with almost equal readiness destroys it. The removal of tartar by the second method does not involve a very great amount of skill, and with suitable instruments is easily performed. To accomplish the operation with success, appliances and instruments of various forms and curves are necessary, adapted and adjusted to the various situations to be operated on. All instru-

ments should be very sharp; but, in my opinion, with the cutting edge slightly removed. The blade of the instrument should be applied at a slight obtuse angle with the tooth, beyond the edge of the deposite next to the gum, and passing under the tartar thus scale it off to the point of the tooth, in such a manner as not to roughen or in any manner abrade the enamel. Tartar which is deposited on proximal surfaces of the teeth is to be carefully noticed and removed with instruments having very thin blades. After the thick deposits have been removed the surface should then be carefully and gently scraped, so as to thoroughly clean off every particle of the tartar, and afterwards fully and completely polished with fine pumice or Arkansas stone, and finished by burnishing. The manipulation of removing tartar is one of the most simple in dental practice, but to be successful in this, as in every other operation, the process should in every instance be performed with the most perfect thoroughness, as neglect or carelessness on the part of the operator will cause a new deposit on a rough surface with great rapidity. In fact a careless operation will often leave the mouth in a worse condition than before the teeth were operated on.

The removal of salivary calculus is perhaps the most unpleasant duty the dentist is called upon to perform, as the majority of the cases which require it are very disagreeable, and many are positively disgusting. The popular mind seems to be lamentably ignorant on the subject of proper care of the teeth; and it should ever be the duty of the dentist to inform his patients of the importance of cleanliness, as many are very prone to neglect the matter, either on account of the unpleasantness of the operation, or from ignorance of the necessity of it.

The eradication of *Green or Brown Stains* requires some practice—judgment, and a more skilful manipulation than the removal of salivary deposits. As this disease presents itself in three distinct stages I shall speak of the remedies suitable to each one.

Stage I. Where the erosion is but slight, friction with a piece of hard and fine grained wood (such as orange wood) combined with fine pulverized pumice stone, will be found sufficient to correct this evil. The principal seat of the stain being on the neck of the tooth and in close approximation with the free margin of the gum, care should, in every instance, be taken not to wound the soft tissue, such accident, although of no material consequences will have great influence upon the patient. In most cases the operation will ever

afterwards be dreaded, and most certainly will they complain of the roughness or the unskillfulness of the operator.

STAGE II. The disease having made great progress we will not only find the enamel discolored to a greater extent, but will also find that the disease has carried its ravages to a great depth. In most cases the dentine will be more or less involved; this being the case the tooth, as a general rule, is extremely sensitive to the touch. The disease presenting itself as above described, the enamel chisel and file will be the most appropriate instruments to perform the operation. The chisel, the first instrument brought into service, should be of fine quality, of excellent temper, decided sharpness and well adapted to the surface to be operated on. And here I wish to remark, that all of the above qualities are combined in the instruments known as Dr. B. F. Arrington's enamel chisels. These instruments may be approximated but not surpassed.

Grasping the chisel firmly, and in such a manner as to leave the thumb independent of the movements of the hand, this (the thumb) should rest on a neighboring tooth, in order that the operator may have perfect control over his instrument and avoid the slipping of the same, by which accident the soft tissue would be wounded. This precaution observed, the operator will proceed with a steady and decided movement of his hand, cutting from the edge of the tooth towards the gum, and thus separate the diseased from the healthy tissue.

In all cases the operation will be painful, but in many intolerable; for such, the writer has applied nit. argent (chrystalized) by slightly touching the sensitive dentine, and with the most happy results.

The chisel following each application of the caustic, the diseased tissue will be removed without much inconvenience to the patient, and before the caustic has time to discolor the dentine.

As a precaution against discoloration, it is advisable to apply a neutralizing agent, such as common salt.

By using the chisel carefully the use of file may be omitted, and I prefer to dispense with this latter instrument as the friction produced by it gives unnecessary pain, and does not aid any in the speedy accomplishment of the operation. Having thoroughly removed the diseased tissue the surface is now ready for final finishing, the process being the same as already described in the removal of salivary deposit. Of course, the above treatment is only advisable where the

dentine is well clacified and of sufficient thickness to protect the pulp.

STAGE III. In this stage of the disease, the dissolution of the dentine will be in very close approximation with the pulp, and in many instances this organ will be found exposed. The treatment applied in the second stage is here not admissible, and should therefore not be attempted, as it would remove too much of the healthy tissue to leave sufficient protection for the vital part, saying nothing of the disfigurement and the weak condition in which the tooth would be left. Under these circumstances our only treatment is to form a cavity of proper shape and fill accordingly.

In the treatment of the teeth, as with all other diseases physical or moral, there is much truth in the old maxim—"an ounce of prevention is better than a pound of cure." The most potent of all preventives of disease of the teeth and mouth is cleanliness. Therefore, the dentist should avail himself of every opportunity, and neglect no means of impressing upon the minds of his patients their duty in this respect.

Local treatment will many times prove insufficient, even in cases which are not complicated with constitutional diseases, as syphilis, scrofula and the like, therefore every dentist should qualify himself to administer this treatment in his own person, rather than refer his patient to the practitioner of medicine.

This is an imperative duty if we would uphold and support the true dignity of our profession, and demonstrate to the world the validity of our claim to be considered members of an alleviating and healing professfon.—*American Journal of Dental Science.*

DISEASE OF THE ANTRUM.

J. H. M., of Surry Co., North Carolina, sent us a few weeks ago, the following history of his own case:

"In 1859. I experienced severe toothache in the left superior 1st bicuspid, followed by swelling. In about a month suppuration occurred, and the pus was discharged through the left nostril, and has continued to run, with short intermission until the present time.

I have no acute pain, but there appears to be a fullness and a dull aching on the side of the left nostril, which appears to be the seat of the disease, most of the time. In the morning the matter appears to

run into my throat and mouth and smells very offensive; in fact this is the case all the time.

My general health is not good; I am very nervous, with constant weakness in the back; although my appetite is good, I am considerably emaciated, yet able to do light work in good weather.

In 1864 a Dentist extracted all the teeth on the affected side back of the eye-tooth, and punctured the antrum from the socket of the first molar without any beneficial effect. The soreness is mostly above the eye tooth, which tooth has always been somewhat sore, so much so as to lead me to suspect it is diseased about the end of the root.

I have been treated by physicians with iodine, &c., without effect. They say I have neuralgia also, but think it originates mostly from the antrum."

We advised, in the first place, the removal of the affected cuspid tooth, believing it necessary to get rid of all irritants, and to determine, by probing, whether an opening existed from the cavity of this tooth into the antrum. If no such communication was discovered, then to perforate the bone above the point formerly occupied by the palatine root of the first molar on the affected side, and use as injections, either Lugol's solution, or the permanganate of potash; to inhale iodine once or twice a day, and paint affected side of nostril and part of face with tincture of iodine; internally to use iodide of iron, iodide of potassa, and cod liver oil, taking this prescription three times a day; also to use bitter tonic tincture of gentian half an hour before each meal.—*American Journal of Dental Science.*

ACUTE RANULA.

At a recent meeting of the Societe de Chirurgie, M. Bouchard related a case of "acute ranula." A woman eight months advanced in pregnancy, while swallowing a glass of wine, felt a tumor suddenly form in her mouth, which in a few minutes had acquired a size sufficient to obstruct the passage of air and threaten asphyxia. He found her in that condition, having both sides of the supra-hyoidean region greatly distended, and with a tumor the size of a large fowl's egg, thrusting back the tongue, and filling the cavity of the mouth, excepting a small space on the left side. The tumor was livid and fluctuating, and seemed to be caused by effusion under the mucus membrane. On making an opening into it with scissors, the dis-

charge of a considerable quantity of white-of-egg fluid showed that the tumor really was an example of acute ranula.—*Philadelphia University Journal of Medicine.*

PRESERVATION OF THE TEETH.

BY H. NICHOLS WADSWORTH, D. D. S., WASHINGTON, D. C.

ONLY the prostration resulting from an attack of nervous fever prevented me, some months since, from avowing my firm belief in the soundness and enlightened views advanced by Dr. Robert Arthur, for a more perfect and successful preservation of the teeth entrusted to us by the confiding public, through a more general *anticipation and prevention* of disease, where our experience has convinced us it must inevitably follow. The propositions advanced by Dr. Arthur, in their general character, are, in my opinion, sound and uncontrovertible; they are calculated, when acted upon by discriminating, honest, and skillful practitioners, to *greatly* increase the per cent. of successful practice; to decrease the expense to our patrons; and, what in my mind is a far greater pleasure than either, afford the satisfaction to our own hearts which is engendered by success.

Twenty odd years of zealous, hearty labor in my profession, with a critical observation of the results of other practitioners of known and acknowledged skill, has demonstrated, beyond controverting, the large number of failures in a few years after performance of approximal fillings. The honest, conscientious in our profession will, I think, acknowledge its truth. If, then, this be true, is it not better for us to adopt some method by which we can decrease the number of unsuccessful operations, and increase those that are successful?

Please to remember, I am not urging this method of practice upon the student and tyro in our profession, but upon the skillful and experienced practitioner,—upon him who knows *when, where, and how* to extract, to separate, and to stop or fill.

Where is the practitioner of ten years' standing that can deny the assertion that, on an average, three out of four of all his patients have lost more or less of their bicuspid teeth—probably four of them? If this is a true average, why should we not then sacrifice four of these teeth early in life, when by doing so we obtain room for an expansion of all the other teeth, in a great measure relieving the crowded condition occasioned by the eruption of the second molars (second dentition), and which is greatly increased by the eruption of

the third molars or dens sapientiæ? If this does not suffice, but evidences of decay begin to show themselves on the approximal surfaces, then the judicious, careful application of Dr. Arthur's suggestions are wise and prudent, and the day I believe is not distant when the profession, rising above prejudice and self-interest, will acknowledge the efficacy of such a course of operating; present it to their patients, explain its utility, and firmly and respectfully urge its adoption.

I am well aware what a handle is given the unscrupulous operator in advancing these sentiments. I am well aware of the prejudice existing in the minds of a large class of our patients against the use of the file (as they all understand a separation); but my impression is, that he who has honestly and skillfully practiced our profession for a number of years, must have obtained a sufficient control over his patients to be able easily to convince them that his advice is for their permanent good, and gain their consent to submit to his experience and skill.

A case came under my observation several years ago bearing upon this point of separating the teeth, which I will relate:

A gentleman for whom I was operating asked my opinion of his front teeth. My answer was, "They have been pretty severely filed." "Yes," he replied, "and I did it myself. Twenty-two years ago my front teeth were very badly decayed. I went to one of the most celebrated dentists in Philadelphia to have them filled. To my horror and disgust, he said, 'They are too far gone to fill and save. I would advise you to let them alone, and when they commence paining have them extracted and artificial ones substituted.' I went down into Market Street, and purchasing a broad, flat file, I went home, placed myself in front of a glass, and, though it hurt almost beyond expression or bearing, filed a broad space between each of my front teeth.

The spaces were enormous, but every tooth was in its place, and likely to remain; the decayed portions yet remained by slight concavities, and others by discolored but not entirely decomposed bone.

Who among us cannot look over the mouths of many of his patients and find many, many elegant teeth that have been saved, and still presenting the beautiful polished surface of a separation and erasure, and that done years ago?

The utmost *skill* and *judgment* are demanded in adopting this mode of operating. The countenance of the *best*, the *wisest*, the most

honest in our profession is necessary to bring it into general practice, for I can anticipate, and have already seen in our own local society with what opposition it will be met; yet,—

"Truth, crushed to earth, shall rise again;
The eternal years of God are hers;
But Error, wounded, writhes in pain,
And dies among its worshippers!"

I am proud to announce myself as having long held nearly the same opinion with Dr. Arthur, as to the propriety of adopting more of a preventive system in our operations; and I have taken the first opportunity in my power to express myself in its favor, and to assist him in his conscientious and honest efforts to advance our profession in science and usefulness.—*Dental Cosmos.*

EDITORIAL.

MEETING OF THE ONTARIO DENTAL SOCIETY AND THE ELECTION OF A NEW BOARD OF EXAMINERS.

It will be remembered by all those who were present at the meeting of the Ontario Society in Belleville, last July, that the Society adjourned, to meet again on the day appointed by Law for the election of a new Board. At that time, a proposition had been made to ask Parliament to amend the "Act" in several respects, and particularly, in regard to the *time* for the election of a new Board, and for th regular sittings of the Board, but for reasons not necessary to be mentioned now, it was afterwards decided *not* to make application till after the next election, which will therefore be held on Tuesday the 7th of June, the day originally fixed by the Act. The Dental Society will meet on the same day at 2 p. m., so as to give the members an opportunity to discuss any and all matters pertaining to the interests of the Profession before the hour fixed for the election of the Board, which will take place at 7 p. m. We hope to see every Licentiate in the Province present, both at the meeting of the Society and at the election. We hope they will come prepared to take an active part in the discussions of the Society—to give out as as well as receive of the good things which the committee have prepared for our entertainment.

The following gentlemen were appointed Essayists for this meeting, viz.:—D. A. Bogart, subject, "Cleft Palate;" H. H. Nellis

D. D. S., subject, "Dental Hygiene;" C. P. Lennox, subject, "Literary attainments of Dental Students;" J. B. Willmott, subject, "Notes from some experiments in vulcanizing rubber;" John Leggo, subject, not announced, from which it will be seen that the meeting will be an interesting one. We hope too, that all will come prepared to vote for the *best* men for the new Board, irrespective of parties or cliques. Let it be remembered that the Society meets on Tuesday 7th of June and that the election of the new Board will take place at 7 o'clock p. m., on the same day. The Secretary, Mr. J. B. Willmot of Milton, will send circulars, to all, stating at what place in Toronto the meeting of the Society will be held. C. S. C.

FINED.—We have received the following from Mr. T. J. Jones taken from one of the Bowmanville papers:

"A WARNING.—As a warning to persons violating the law respecting Dentistry, a young man by the name of Thomas was on Tuesday last brought before F. Cubitt and and J. Milne, Esquires, Justices of the Peace, and fined for practising dentistry in Orono and vicinity, without having a license so to do. According to the Act, no person is allowed to do business as a Dentist who has not passed an examination before the Dental College Board, and received a Diploma."

Mr. Jones writes that he is determined to prosecute every man calling himself a Dentist, who attempts to practice in his vicinity without a license.

A DUN'S REVENGE.—The Vienna correspondent of the *Daily Telegraph* tells the following story:—"A few months ago one of the first dentists supplied Madame de B, a lady well known in our fashionable circles of the *haute* finance, with a splendid set of false teeth, worth about forty pounds, and waited with exceeding patience for payment. Finding that the lady 'made no sign,' he applied, after three months had elapsed from the date of delivery, by letter, for the discharge of his claim. No answer. A fortnight later he wrote again, in somewhat stronger language, but received as little notice of his second as of his first application. Determined to have his money, and to be even with Madame de B. for her discourtesy, he last week inserted in a small suburban paper the following advertisement:—"A magnificient set of self-adjusting enameled teeth to be sold dirt cheap. They are daily on view in the mouth of Madame de B. (full name), Stadt, So and So street, No. —." Then he cut out the slip, and enclosed it in an envelope to the fair defaulter. Two hours after his bill was paid, and Madame de B., hoped, as the paper in which the advertisement appeared was an insignificant one, that she had heard the last of her bargain; but alas! to-day the leading journals of Vienna have got hold of the story; and if I were the toothless *lionne* whose name is in everybody's mouth, I think I would leave the Kaiserstadt for a season. No teeth have made such a sensation since Cadmus' famous crop."