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MARCH, 1871.

No. 5.

THE CANADA  
**Journal of Dental Science.**

ISSUED MONTHLY.

EDITED BY

W. GEO. BEERS, L.D.S., *Montreal.*

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## THIRD VOLUME.

THE CANADA

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THE CANADA  
*Journal of Dental Science.*

*Vol. III.]*

*March, 1871.*

*[No. 5.]*

*ORIGINAL COMMUNICATIONS.*

NOTES ON OPERATIVE DENTISTRY.

BY F. G. CALLENDER, D. D. S., TORONTO,

In fulfilment of my promise to contribute an article to the journal upon some practical subject in Operative Dentistry, I must premise that I am not attempting to advance anything new, but simply to describe my mode of procedure in some of the cases which are daily presented to me for treatment.

There are many points of interest to the young practitioner in operative dentistry, which I would prefer to demonstrate rather than attempt to describe. In the one which I now purpose discussing, my practice will doubtless be viewed by many as questionable, by some, possibly, as extreme and impracticable. By many of our leading practitioners the preservation of the natural teeth is made a specialty, which implies a conscious responsibility. Now, to what extent may this "specialty" be carried? When should a tooth be drawn? Can we in justice gratify the whim of every one who comes in with an aching tooth to have it extracted? Have we a right to do a permanent injury to a patient in order to relieve temporary suffering? I answer, no. The teeth which ought to be extracted or drawn can be only those which may be removed without sacrifice to the possessor, such as necrosed teeth, for instance, teeth that have become a source of irritation from elongation, having lost their antagonists, or from receding of the gum and alveolus, and roots that are of no value. I know it is the custom with many dentists to remove all roots, but how often do we find roots that have antagonising teeth, which are of more value than any artificial ones can possibly be, and which are in no way injurious to the remaining teeth, which a plate always is to some extent, besides the necessary injury and loss by their removal, from the absorption of the alveolus and receding of the gum, denuding the necks of the teeth.

In illustration of this I may state that, soon after the introduction of the os artificial, as a material for filling teeth, I was called upon to remove some roots of teeth of which scarcely anything remained but cementum, and from some of which abscess had formed. To avoid as much as possible the danger of breaking, on account of their extra frailty, I cleansed and filled the root with the os artificial and dismissed my patient with instructions to call again, allowing sufficient time for the filling to harden, that their removal might be accomplished without fracture. On their return in a few days, to my surprise I found the discharge from the abscess had ceased, the periosteum assuming a healthy condition, and the supposed worthless roots of great value for mastication. I have used the os artificial extensively since then, in similar cases, with uniform results. This, to me at least, accidental discovery, through efforts to avoid unnecessary suffering, has enabled me to save for years of usefulness, many roots and shells of teeth, long since condemned, for which I have received remunerative fees and the warmest expressions of thankfulness. Taking these facts into consideration, then, are we justified in deforming (for I can call it by no other name) the human countenance by the wholesale removal of teeth and roots, simply for the convenience of the mechanical dentist, who, at the best, can but partially supply the loss? I think not.

I have now, for some years, been using the os artificial, in my efforts to preserve frail shells of teeth, and teeth with exposed pulps, and devitalized pulps. For this purpose, as well as for fang fillings, I consider it the best material now in use, and when fully hardened and protected with gold, it affords the best support that has yet been obtained.

•  
(To be continued.)

#### EXTRACTING TEETH.

BY G. V. N. RELYEA, L. D. S., BELLEVILLE.

It has often occurred to me that it would be amusing, at least, if not profitable, were practitioners of long standing to give their experience of extracting teeth. I do not mean the manner of doing it scientifically and successfully, but the scene and doing of patients and operations.

For the present I will relate a very few out of the thousand and one that I might give.

1. An Irishwoman came in to have a tooth extracted. She took the chair crying and exclaiming, "Oh, dear doctor, you will murder me!" I quieted her fears and in an instant her tooth was out. She bounded from the chair and asked, "Is it out?" I exhibited the offender to her, till in the grasp of the forceps, when she raised her hands and eyes to

Heaven, and with the most beaming expression of countenance; exclaimed, "God grant there may be a place in Heaven for you!"

2. A pale, emaciated female came in with the toothache. To say she was all nerve is too tame, she was a perfect battery. What a time we had of it! We spent the afternoon over her tooth, indeed until it was too late to operate. She finally concluded to bear it until morning. I advised her to do so, glad to see her go. Morning came, and so did my patient. I own I was mad at the sight of her, but soon made up my mind to have the tooth out or dispatch her—I mean out of the office. I laid out the lancet and forceps, she opened her mouth. I looked at the tooth. She had allowed me the same privilege fifty or a thousand times the day before. She thought herself safe, of course, while she had her hands at liberty and could close her jaw. It was the first upper superior molar to be extracted. I found no teeth in the lower jaw on either side back of the eye tooth. Deliberating for a moment I quietly and gently, but firmly, closed in upon her, with my left hand in her mouth, and then reached for my instruments. She suspected my intention and attempted to force me off, but too late, the noose was on, "darkey had to swing." I brought the tooth, but paid for it. She kicked over my show case and sent the specimens in every direction, paid me a quarter of a dollar, and despatched herself.

3. A baroness came in to have her tooth extracted, was accompanied by her Lord the Baron. It was about one o'clock p.m. when my patient took the chair, and I took my position, forceps in hand, when the questions so familiar to any dentist commenced. What instruments to use? Let me see it. Will it hurt much? How long will it be in coming out? Won't the instrument slip off? Won't it break the tooth? Won't the tooth crush in? Are you sure you can get it out the first time? Won't you injure the jaw? &c., &c., for at least one hour. I lost patients and patience, and finally told her that I would charge for time. This made no difference. Her husband took his turn at coaxing, and finally at swearing; he was a dreadfully profane man. I never allowed profanity in my office, but then he was a Baron. At four o'clock she came to the conclusion to go home and send for me in the morning. She put on her bonnet and the Baron stepped up and inquired the fee. Five dollars. The stamps came down, my patient left. I have never seen her since, nor do I ever expect to again.

4. A great, coarse, burly Englishman took the chair. I took hold of the right upper superior molar, and at the first move he seized my hand with both his and he bellowed "let go." I replied, "you let go." He would not, and I could not. It was his deathly grip that locked



my hand and locked the forceps on the tooth. He next tried what virtue there was in nails. This enraged me. I made another tug, he relaxed to strike me. I improved the moment and his tooth was out. He bled and so did I. His contrition and apologies, and taking his pocket-handkerchief out and wiping the blood from my hand, made all right.

A student from the Commercial College came to my residence on Sabbath last. His face was much swollen. He took the chair and directed my attention to a lateral incisor. The history of the tooth I will give at some future time, suffice it for the present to say I extracted the tooth, and a copious flow of pus followed. I put the tooth in a glass of warm water and commenced to syringe out the socket, which I continued to do occasionally for an hour. In the meantime I washed and scraped the tooth thoroughly, and then returned it to the socket, held it up a short time and dismissed my patient. Two days after I met him in the street with a cigar in his mouth. I enquired about the tooth, he replied all right, except a little tender. I will report this case more fully if it does well.

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#### THE RUBBER DAM.

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

It is hardly necessary to state here, what must have become an axiom with every intelligent dentist, who has had much experience with gold, that absolute freedom from moisture is essential to the perfect working of gold foil. Yet there are many operators who merely make a filling that has not been exposed to a greater or less degree to the effect of moisture. All know and have felt the nervous effect on the operator of being constantly on the guard against the mucous secretions or saliva, and where these have been effectually foiled to find the gold losing its adhesive and welding qualities, from the influence of a humid breath which not unfrequently carries dampness enough to spoil the working of the best gold. In many mouths it has been simply impossible to make reliable operations in gold on the lower jaw on account of these obstacles, and such cases occur sooner or later in every dentist's practice. Taking it for granted that the rule of every dentist should be to aspire to the highest standard in his operations, it becomes a duty he owes to his patients, to avail himself of every appliance, and fixture that will assist in neutralizing this one great bar to perfect success in manufacturing gold.

In the Rubber Dam we have the "*ne plus ultra*" of all appliances for protecting operations against moisture, at once forming a complete guard against all the secretions of the mouth.

As with most new appliances, and perhaps a little more than usual with this, there will be some difficulty at first in managing it, but it needs only persistence and some small degree of ingenuity to soon overcome all trouble, and in operations of any magnitude, it amply repays any difficulty that may be experienced in adjusting it.

In the large majority of cases after the operator has become a little familiar with it, it can be readily applied for cavities on the approximal surfaces of the incisors, and if gained, there will be as little trouble in adjusting it for approximal and crown operations in the bicuspid and molars, and also in many instances of buccal decay. To insure success the material should be tough and elastic, which characterizes the best quality; the holes should not be too large, large enough to avoid any danger of rupture in adjusting, and sufficiently small to insure a water-tight joint at the neck of the tooth. The divisions between the holes should be broad enough to completely occupy all the space between the teeth when the rubber is distended, in this respect a little experience will soon enable the operator to judge correctly.

After the dam is in position it will assist in retaining, to wipe the teeth perfectly dry with spunk or bibulous paper, the rubber will not slip as easily on a dry surface, but if the shape of the tooth is unfavourable to its retention without other means, a ligature will be found an effectual fastening. The edge of the rubber should be inverted, after it is on the tooth, so that it will be toward the margin of the gum. If a ligature is used, that will accomplish it as it is crowded up the neck of the tooth, but if a ligature is not necessary to hold the rubber, the inversion can be accomplished with a thin burnisher or other blunt-edged instrument. It is especially essential that the edge should be inverted in cases where the decay extends beneath the margin of the gum, otherwise it will be difficult to carry it above the cervical wall. With right management the rubber can be carried safely above the cervical wall even in extensive decay at the neck of the tooth. The dam can be adjusted wherever floss silk can be forced between the teeth, and where that cannot be the teeth can be sprung by wedges, or a thin instrument. The easiest manner in the majority of cases is to carry the rubber down with the ligature. A thousand and one ways will suggest themselves upon repeated trials, and nothing but experience is needed to insure success. The material can be procured for four dollars per yard. A yard will furnish material sufficient for one hundred experiments at least. Cut it for use as wanted in sections about eight inches square, Use fresh pieces for the back teeth, and these can be used again for the incisors, cutting the holes nearer the margin. Wash the rubber thoroughly with soap

and water on first getting it. Each piece should be washed as soon as used and hung up to dry. Any one procuring the dam and following these directions, will immediately after using one yard, want another.

### THE APPLICATIONS OF HOMŒOPATHY TO DENTAL SURGERY.

BY THOMAS NICHOL, M.D., MONTREAL.

No. 2.—*Calendula Officinalis*.

The sphere of *Calendula* is not so wide as that of *Arnica*, but in its place it is quite as valuable a remedy. It is the specific remedy for incised and lacerated wounds, and has specific power to prevent or diminish suppuration in such cases. While *Arnica* is the remedy for bruises, contusions and sprains without laceration, *Calendula* is the true specific for external wounds, and lacerations with or without loss of substance. This remedy, too, affects the healing without leaving any prominent eschar. Dr. W. J. Clary, of Monroeville, Ohio, says that "if applied constantly, gangrene will not follow, and I might say that there will be but little, if any, danger of tetanus."

These statements are amply confirmed by numerous cases reported in the German journals, of which the following is an abstract:—An apothecary named Flügge was instrumental in introducing this remedy, and in order to convince some visitors who doubted the marvellous efficacy of its powers, he made a deep incision in his hand with a carving knife. Into this he poured some *aqua Calendule*, tied it up, and next day appeared before the company with the wound perfectly healed. A laborer had his right index finger crushed, including the bone. The loose pieces of bone were taken out, and the *aqua Calendule* was applied. The cure was speedily completed and without suppuration. A carpenter almost severed his foot by a blow with an axe; *Calendula* was used, and in six days the wound had healed perfectly. Dr. Schneider, the introducer of this remedy, fell out of his carriage, smashing his leg, causing a severe compound fracture; he applied a compress saturated with the *aqua*, and was healed in a few days. Many similar cases may be detailed, and Dr. Franklin, of St. Louis, and other American surgeons, bear similar testimony to the curative virtues of this remedy in the case of wounds, having tested it thoroughly in the armies of the South-west, after the battles of Pittsburgh Landing, Murfreesboro', etc.

In dental surgery it is useful after the extraction of roots and teeth, and also after any severe operation. Dr. James W. White says that "a few drops to a goblet of water, as a mouth wash, is very comforting to the patient when undergoing the operation of the removal of salivary calculus from the teeth." It is well adapted to patients of a strumous diathesis.

The aqua Calendulæ, originally used by Dr. Schneider of Tulda in Germany, is thus prepared. The fresh yellow flowers are introduced into an apothecary's flask, which is loosely filled with them, and then tightly corked. It is suspended from a tree, exposed to the sun, where it is allowed to remain until late in the fall. The sun extracts from the flowers a liquid which collects at the bottom of the flask, and which has to be poured off every now and then, and carefully preserved in a tightly corked bottle. After the flowers have settled at the bottom they are taken out and pressed, in order that the whole of the liquor may be extracted. At first it is turbid, having an astringent, acrid and bitter taste, and the peculiar Calendula odour; it is somewhat viscid and glutinous, deposits a grey sediment, and if kept in the warmth is apt to become mouldy. A second preparation is obtained by mixing one-third of a bottleful of the flowers (and leaves) with two-thirds of that bottle filled with a mixture of alcohol and water, equal parts. This preparation must be diluted with water when used, lest the alcohol should irritate the wound.

I have never used either of these preparations, having obtained excellent results from a tincture prepared by macerating 8 ounces of the flowers and green leaves (equal parts) in a pint of dilute proof spirits, and of this tincture I add a teaspoonful to a teacupful of water. I have had good results from the use of an infusion of the dried plant. I am in the habit of growing the Calendula, which is the well-known marigold of our gardens, drying the flowers and green leaves in the sun for future use.

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#### NICKEL PLATING FOR INSTRUMENTS.

BY H. L. HARRIS, D.D.S.

When it was first suggested to plate dental instruments with nickel, I thought it one of those hasty conclusions from which we are sure to recover; but after a year's experience with my forceps and pluggers, I feel it a duty to commend and recommend it to the profession.

If we leave our steel instruments over night, with the office window open, and indeed in any case, time will tarnish them; whether by moisture, contact with acids, gases, &c. The same with articles which are silver-plated. I found the sulphur of my rubber dam soon destroyed the silver plating of a few articles in my case, and now I prefer nickel to silver. The finish of my nickel-plated pluggers which I have daily in use, is just as brilliant to-day as a year ago, and I find that silver-plating cannot stand inspection beside nickel in any case. It resists the action of the atmosphere and heat perfectly. The fluid of the oxy-chloride of

zinc does not tarnish it, and even mercury has no effect upon it; while it is as hard plated as if the entire instrument was pure nickel. Indeed, I believe it will eventually supersede silver plating. Instruments are easier kept clean; pleasanter to handle; handsomer to look at; not one particle impaired in temper or anything else, and more durable, and I can confidently recommend it to the profession. I learn that one firm has actually commenced to put a heavy coat of nickel upon all exposed parts of their vulcanizers, to preserve them from rust and discoloration.

---

#### MIXING PLASTER FOR IMPRESSIONS.

BY H. G. KENNETH, L.D.S.

I have been in the laboratories of many of my *confrères*, and have never seen any of them mix their plaster of Paris for impressions as I do, and I flatter myself that I get the best models I have ever seen, not a bubble or a flaw. For plaster impressions of the mouth my plan of mixing is the very best, and will cause the plaster to set immediately. I simply put it and the water in a wedgewood mortar, and grind them rapidly until sufficiently incorporated. I think we save much annoyance and loss of time by making use of such little hints.

---

#### ASTUTE INVESTIGATION.

BY A PHYSICIAN.

As an evidence of the amount of investigation really given by the few dentists who oppose the discriminating use of amalgam for filling cavities in the teeth which cannot be filled with gold, I will relate a case briefly which, to-day, came under my observation.

A lady patient of mine, whom I had had occasion to salivate in order to save her life, some time after her recovery sent down to her dentist to make an appointment for an examination of her teeth. At the appointed hour she attended, and when the astute dentist looked at her teeth and saw, alas! almost a total wreck, destruction of the alveolar processes and loosening of the teeth, he immediately got excited, and assured the lady that two amalgam fillings in her teeth had caused all the injury. She was greatly alarmed, of course, and charged the dentist with mistreating her, as he himself had filled the teeth! Explanations and examinations followed, and the fillings were found to be of tin! The *denouement* is suggestive to my mind, and should be to all intelligent reasoners.

## TREATING DISCOLOURED TEETH.

By X. Y. Z.

I have tried many things for bleaching discoloured teeth ; have succeeded with some ; failed with mostly all. Some are too caustic, others too easily deliquesced and their normal effects neutralized.

In all cases of discoloration which I can have under my control, I thoroughly remove every particle of decay, dead pulp, &c., and take chloride of lime 1 part ; oxy-chloride of zinc 1 part, mix as usual with the fluid of the latter, and fill the cavity, renewing several times in the course of a month. The chloride of lime must be fresh and have been kept close corked. I was indebted to a friend a long time ago for this simple method of treatment. It has served my purpose very nicely several times.

## PREPARED CHALK AND LIME WATER.

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

Among the varieties of dental decay met with, none present a more ominous appearance than those cases in first dentition where the enamel softens and flakes off, and the caries attacks points of the teeth the most exposed as well as the most remote. It is frequent in large families of children, and peculiar to certain families, and seems to prevail where hygienic treatment is most conscientiously observed. Salivary calculus does not form to any usual extent upon these teeth ; though the gums are generally inflamed, and covered at their margins with a slimy, yellow scum, as if deposited from the food, but evidently a salivary deposit.

In the rage and rush after novelties, we are all too apt to ignore remedies effectual for such conditions of the teeth, which were once very popular, and I think those who have ceased to prescribe prepared chalk and lime water, for such cases as above mentioned, have not succeeded in discovering anything better.

In one American family of five children, whose teeth were extremely sensitive, and decaying very rapidly—the youngest five years of age having fourteen cavities, I attribute a decided improvement, to the regular use of chalk and lime water as prescribed, and I might illustrate from several other families, to show the positive healthy reaction in the acid secretions of the mouth, and the improved state of the blood, and a modification, or cessation in the character of the decay. The method of administration is simply to use the chalk as a dentifrice, rubbing it at night between the teeth in every direction with the finger, and taking a wineglass full of lime water three times a day for from two to four months.

## PROCEEDINGS OF DENTAL SOCIETIES.

ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO.

BY J. BOWES, SECRETARY *pro tem.*

A meeting of the Board of Directors and Examiners of the Royal College of Dental Surgeons of Ontario, was held in Toronto, commencing on Tuesday, the 17th of January.

There were present Messrs. H. T. Wood and T. Rowe of Cobourg; G. V. N. Relyea, Belleville; F. G. Callender, Toronto; A. C. Stone, London; L. Wells, Simcoe; and J. Bowes, Hamilton

The principal business of the meeting, other than examining candidates and granting licenses, consisted in taking into consideration and adopting an amendment to the "Act respecting Dentistry." After discussing the matter pretty fully, an amendment was agreed upon, and a Committee appointed by the Board to lay it before a Special Committee previously appointed by the Legislature for that purpose.

After some discussion and consultation with the Committee appointed by the House, it was thought best to withdraw the bill for the present, in order to get a full expression of opinion from the dentists of Ontario, as to what changes are required in the Dental Act. In order to lay the matter fully before the profession, a copy of the amendment, as adopted by the Board, will be sent by the President of the Ontario Dental Society to every dentist in the Province, one month previous to the meeting of said Society.

There were six candidates for examination. The following five passed the ordeal successfully and received certificates of L.D.S., viz. :—

James Ferguson,.....	Bowmanville.
James Woods .....	Toronto.
Thomas Wilson.....	Bond Head.
Thomas W. Raines.....	Almonte.
Samuel Musselman .....	Markham.

One failed to come up to the required standard.

Applications were also received from three others, but as they had not served the prescribed length of time, the Board could not entertain them.

Licenses were also granted to six persons under the five years' clause of the "Act respecting Dentistry."

Mr. F. G. Callender, of Toronto, resigned his position as a member of the Board, and Mr. J. W. Elliot, of Toronto, was elected to fill the vacancy thus caused.

## MONTREAL DENTAL SOCIETY.

BY L. J. B. LEBLANC, L.D.S., SECRETARY.

A voluntary society, bearing the above name, was organized on the 10th of last month, for the purpose of cultivating closer professional relations among the members of the profession in Montreal, a better understanding on points of ethics, &c., and to encourage a high standard of excellence in dental science and art. Meetings are to be held regularly on the first Monday in each month; subjects for discussion, exhibition of improvements, and a free revealing of "secrets," &c., are to form a regular programme. It is expected that a local society such as this, holding monthly meetings, will do more to benefit its members, than the Provincial society which meets only twice a year; and living in the same city, its members are sure to become more united, and to reflect credit upon the profession. The following were elected office-bearers:—

*President*—W. George Beers, L.D.S.

*Vice-President*.—C. F. F. Trestler, M.D., L.D.S.

*Secretary*.—L. J. B. Leblanc, L.D.S.

*Committee*.—Charles Brewster, L.D.S.; J. H. Webster, L.D.S.; C. Webb, L.D.S.; L. Globensky, L.D.S.; R. A. Alloway, D.D.S.

March 6th.—The regular monthly meeting was held this evening at the office of J. H. Webster. Present, W. G. Beers, C. Brewster, C. F. F. Trestler, J. H. Webster, C. J. B. Leblanc, M. F. E. Valois, J. Young, E. Mathieu, S. Globensky, C. Nichols, A. Wright, J. Lauder. Apologies from Drs. Bernard, Alloway and Trestler, jr.

The idea of appointing younger members to give a brief reading from some dental writer was originated for the purpose of accustoming them to the sound of their own voices, and so persuading them to take more active interest in the proceeding. Mr. Young opened the programme with a reading descriptive of an extraordinary case of *Entozoa*. Mr. Nichols read a paper on "Cheap Dentistry," referring strongly to those who work for reduced prices, by which means they every day degrade the profession. This professional degradation always returns on its author. Mr. Brewster then read an interesting paper on the "Manufacture of Artificial Teeth," giving the American manufacturers hard "raps over the knuckles" for the defective *strength* of their teeth compared to those made in England. Specimens were exhibited showing the porosity of the former, and the density of the latter. Every praise was given for improvements made in shapes shades, but it was considered that since the introduction of vulcanite the real strength of the tooth material was not as good as before, and that even the plate teeth of to-day were not as dense and strong as the plate teeth of twelve



years ago. The paper will appear in the next number of the C. J. D. S. Mr. Beers read a paper entitled "Teeth at Birth," giving a description of two cases which came under his observation in Montreal, and referring to historical cases. This paper will also appear in the next number.

Discussion then followed on matters of interest to the profession. Mr. Leblanc was appointed to read an essay at the next meeting; and Mr. Valois to give a reading. Discussion, and experiments with nitrous oxide on rabbits, &c. The next meeting will be held on the 1st Monday of April at the office of the secretary, L. J. B. Leblanc, 581 Craig street.

The society intend devoting some time and attention to microscopical studies.

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#### EPITOME OF THE PROCEEDINGS OF FOREIGN SOCIETIES.

##### BROOKLYN DENTAL SOCIETY.

Dr. J. S. Latimer. In cases of exposed pulps. I generally use creosote pretty thoroughly for two or three days, filling the cavity loosely with cotton, and then before filling with the os-artificiel, I always take a small piece of tin foil, cutting it so as to fit easily to the bottom of the cavity, put on it the least bit of thick sandarac varnish, and placing it in the bottom of the cavity, with the varnished side next to the pulp, I gently put it down to its place with an appropriate instrument.

The tin foil being very pliable and easily adjusted, together with the varnish which spreads out over the bottom of the cavity, completely covers it and prevents irritation of the pulp when the os-artificiel is applied. I find the amount of pain very much lessened by this method, and the operation thereby rendered the more pleasant to the patient. I do not usually fill the cavity entirely with the os-artificiel, but only partially so, filling the remainder of the cavity with Bevin's stopping. I prefer this material, because in case of trouble it is more easily removed than the other. I always wait a few days to see if all goes right before performing the permanent operation.

I have formerly expressed myself as almost discouraged with regard to bleaching teeth; but I have had reason to change that opinion within a short time. A few days ago I saw a tooth I had bleached three years ago, and the color was decidedly good; also another case of a lady for whom I bleached a tooth and filled it temporarily; one week after she came back with it nearly as much discolored as at first. I bleached and filled it again, this time permanently; it has been two years since it was done. I saw it a short time ago, and the colour was excellent. I speak of this because it has been an encouragement to me, and I judged it would be a matter of interest to my professional brethren.

*"Cause and Treatment of Caries of the Teeth."* — Dr. A. H. Brockway. This is a subject which embraces nearly the whole field of our profession, if it is thoroughly discussed, and I feel that it is one that calls for our best thought and judgment.

A few years ago the dentist would consider his duty performed by filling such cavities as could be filled without too much expenditure of time and material, getting over the difficulty of very large operations, and ridding himself of diseased teeth by extraction. The day for such treatment has passed by, and in the light of the present time the conscientious practitioner will have demands upon his intelligence and skill that will tax his resources to the utmost, and his treatment of different cases will be exceedingly varied, his aim being to retain all the teeth possible, and often the roots of teeth, when it is important to preserve the contour of the face, as well as for the purposes of mastication.

We are not at all clear as to the cause of caries. In general terms it may be stated as being produced by some agent favoring the renewal of the mineral portion of the teeth. The treatment is so extremely varied, that we could better describe it if we had a case in hand. The carious portion, however, must be removed, and in its place some material substituted that will resist mastication and restore the lost portion. Then arises the question as to what we shall use. It has been pretty generally decided that gold is the best material to use, and yet I think there are many exceptions to that rule. It seems to me that any dentist who uses only gold must do some injustice to his patients. To obtain success in gold, it must be used thoroughly, the cavity must be easily get-at-able, and the tooth kept perfectly dry during the operation. Another consideration to be taken into account is the strength of the tooth structure, which must be sufficient, or the tooth will give way, and failure result. My judgment is that many cases are better treated by some plastic filling than with gold. I think the object of the dentist should be, not so much to see what he can do as to observe the interests of his patients, and the uses to which the teeth will be subjected. There are many cases coming under my care which I treat with other materials than gold.

I wish enlightenment concerning caries which attack the labial surfaces of central and lateral incisors near the margin of the gums, extending often so as almost to completely girdle the tooth. I have such a case in hand at present.

Dr. Jarvie. In the treatment of caries, I think we should take into consideration the fact that the teeth differ very materially from other bones of the body, inasmuch as the lost parts are not replaced by nature as they are in the bones. In many cases, especially on the approxima

surfaces of the teeth, decay can be removed by filing between them when it is superficial; but when it extends through the enamel, we must use some material to restore the lost portions of the tooth structure. I think gold is preferable by far in the majority of cases. After filling a tooth the question is often asked by patients, "Is that tooth likely to decay again?" and we have to answer the question the best we can.

The place where fillings most always fail first, is at the cervical portions of the tooth, owing to various circumstances: that part of the cavity is the most difficult to thoroughly prepare and fill, and there is a liability of leaving an excess of the filling, especially where the cavity extends under the margin of the gum; then there is a tendency for the food to lodge between the teeth, and when left there by the negligence of the patient, the tooth is exposed to the destructive agencies engendered by the decomposition of the matter crowded into the spaces. I have often taken out the remaining portions of tin fillings which have worn down very much, and have been surprised at the good condition of the tooth structure underneath, finding it sound and firm. I think it can often be used under circumstances which would cause a failure if we were to attempt to use gold. The tin foil being very soft, packs closely against the walls and prevents leakage. In children's teeth tin is often the best material to use, on account of the difficulty we have in controlling the restlessness of the little patients.

Dr. J. S. Latimer. In such cases as Dr. Brockway has referred to where caries has attacked the labio-cervical portion of the tooth, the great trouble is that the dentine is so exceedingly sensitive that we cannot prepare the cavity as thoroughly as is demanded, and the probability is that even after we have done the best we can, decay will commence again. In treating such cases as these, I advise the use of prepared chalk, lime water, floss-silk, and brushes. When I have finished putting the teeth in order, I say to my patients, "I have done my part, and have told you how to manage your part. You can, if faithful, prevent the recurrence of decay: brush your teeth thoroughly three times a day, and use a good tooth-powder."

Here is a case in point. A lady, sixteen years ago, had her teeth filled by a dentist of this city. He put in many amalgam fillings, and but few gold ones. He gave her thorough instructions about keeping her teeth clean, and dismissed her. Her teeth have not been examined during these sixteen years. She came into my hands a few days ago; but after a most careful examination I found nothing to do. Her faithfulness had accomplished its perfect work. Her health during this term of years had been moderately good. I speak of this for the encouragement of us all.

Drs. Brockway, Cook, and Mirick commented upon, and approved of, the teachings of the late Dr. Arthur, Philadelphia, concerning the removal of decay by filing, especially on approximal surfaces and afterwards polishing thoroughly.

Dr. Mermier said he was a living witness of the excellence of just such treatment, as he had his two superior central incisors treated in that manner over twenty years ago, and they are now free from decay.

Dr. Bozue. I rise to dissent from all this last teaching to which we have listened, as I cannot accept it fully. It seems to me that to have the teeth separated in this manner by filing, and the natural covering taken off, is not right. We hardly need any argument to prove that at the time such practice was taught by Dr. Arthur the least expenditure of time and trouble was the doctrine among dentists. The theory of decay was not so well understood in those days as now; neither was thorough cleaning of the teeth nearly as much insisted upon by the dentists as at present.

I do not think the Creator makes any mistakes with reference to the shape or structure of the teeth. The enamel is the natural covering of the exposed portion or crown of the tooth. To ruthlessly remove this by filing, and also spoil the shape of the teeth, I wholly dissent from. Where decay has not gone through the enamel, it may be well enough. I think that faithful care, and not the health of the patient, is the principal thing in the preservation of the teeth.

To illustrate this I will relate concerning one case of a young lady who was last under my care about three weeks ago. I had filled quite a number of cavities for her in 1863. Two of the incisors, central and lateral, were pulpless and discolored. I bleached them and filled them by hand-pressure. During the time she spent at my office she got such a drilling in the doctrine of taking care of the teeth that it followed her from that time to this. Her teeth were frail then, even now they are frail, her health has been poor during these years, and yet under these adverse circumstances I found only two fillings that needed removing. Such a result as this is due alone to her persistent care. She told me that she had hardly ever failed during the seven years to brush her teeth immediately after finishing her meals.

Had I in that case adopted the practice of filing the teeth apart, the natural appearance of the teeth would have been sacrificed, and the comfort of the patient decidedly interfered with. The teeth, especially the bicuspid and molars, are naturally arranged so that there is very little space between them—the object being that no food should be crowded between the teeth. If I had separated them with the file, and destroyed this unity and left spaces, some of which would have been of a V-shape,

the food in mastication would have been crowded down between the teeth, irritating the gums, and seriously interfering with the order of nature.

Again the flat surfaces between the teeth left after the use of the file, cannot be so readily cleaned by the brush, as the naturally rounded surfaces of the teeth as we find them in their proper development.

Dr. Mills. If I were asked what I would do for the treatment of caries and I could resort to but one method, I would say, treat with *extreme cleanliness*, which, in my opinion, if it was faithfully followed, would do more to arrest the progress of caries than anything else we could do with all the other methods we have to adopt. No one thing, in my opinion, is of more vital importance than healthy and clean teeth. Then let us as much as possible proclaim with earnestness that cleanliness is the best treatment for dental caries. It has often been referred to in the meetings of dentists, that we ought to put before the public some intelligent instructions in the way of a book. In this direction Dr. Lyon has commenced the distribution of just the kind of teaching that the masses need. The title of the book is, "The Teeth, and how to take care of them."—*Cosmos*.

2ND DISTRICT DENTAL SOCIETY, N. Y.—The subject for discussion was: "The Method and Propriety of Extirpating Pulp."

Dr. Marvin was the essayist. His paper reviewed the subject strictly from a conservative standpoint.

Dr. Elliott says he does not feel warranted in trying to save pulps that had been inflamed. Thinks if they are once inflamed they are reduced in their recuperative power. Caps pulps from the ages of fifteen to thirty-five. Prefer patients of nervous, sanguine temperaments. For the last eight months has kept a record. Has had uniform success. To prepare pulps for extirpation, devitalizes with arsenic and creosote. Is not afraid to leave it in the tooth indefinitely. Thinks one application will not necessarily destroy the whole pulp. Acts on the vital principle. Don't know just what that is. Does not think it acts on the circulation. Believes the pulp can be restored to its normal condition of health if partially destroyed. Admires those dentists who endeavour *intelligently* to save inflamed pulps.

Dr. Hill: Believes some pulps can be capped and saved. Would not attempt to save one less than thirty years old. Does not believe a pulp can be restored after an application of arsenic. Can not find anything laid down in books to prove the fact, and has consulted physicians upon this point, without being able to elicit any proof of its being done.

Dr. A. H. Brockway says: Nerve tissue can be reproduced. Referred to cases where teeth had been removed from their sockets, replaced, and

assuming their former functions of use and comfort. Does not use *morphia* with arsenic and creosote for devitalizing pulps. Covers the application with cotton and sandarach varnish, to protect the tissues from the arsenic.

Dr. Marvin : would add wax for a covering, giving greater security from the danger to which the process as well as the tissues are exposed.

Dr. Elmendorf to make greater security with the stoppings named, he applies the rubber dam, to facilitate the operation.

Dr. A. H. Brockway asked if any one present saved all pulps alive ? Said Dr. Atkinson *thinks* he does.

Dr. Mills says he *tries* to save *all*. Has not capped a large number. Knows of three that had died. One, a young subject of a low toned organization. Was inflamed. Was a six-year molar. Pus discharged from it. Treated it with aconite and creosote, alternating according to symptoms. Considered it restored to its normal condition, but it *expired*. Recognizes the fact that some cases are more favourable than others. Does not think because he failed that an *intelligence of a higher order* would necessarily fail. Does not apply *death* to a pulp, knowingly, any more. "Does not give *life*, does not feel that he has any right to take it."

Dr. Marvin saturates bibulous paper with creosote and packs it gently over the exposed pulp. Then applies oxy-chloride of zinc. Thinks the paper prevents the excruciating effects of the chloride of zinc. Thinks some pulps do live after being capped. He wants to think the profession making some advance.

Dr. Elliott looks upon the creosote as the agent of success, and not the oxy-chloride of zinc cap. Saturates freely with creosote. He adds that he believes arsenic destroys cell by cell, molecule by molecule ; therefore, its action could be arrested.

Dr. Marvin believes if this action of arsenic is by the continuity of molecules, its action would continue in its power to destroy. Leaves the arsenic in twenty-four hours ; if not sufficiently devitalized, renews the application until he is able to remove the whole pulp. He added that he had treated a few pulps by capping with oxy-chloride, had no reports to make. Was not clear in his own mind, and did not know that any one was.

Dr. Hurd said that the trying to save exposed pulps alive by capping was no new thing. He had gone over the field of experiments in this line and had decided to destroy all pulps exposed, by the application of arsenic and creosote. Thought the nerve extirpated alive was the safest way, but it was accompanied with so much pain, patients would not submit to it. Lets the arsenic remain eight days. If it remains longer will cause periostitis. Says if the pulp is removed after exposure it is a safe operation ;

to cap is not. Says oxy-chloride is a cruel application, and *will destroy* the pulp. It may be quiet for a time, but a *volcano* is there, and one day it will show its power, and bring sorrow to those who have capped the pulps. Says a great number of those that have been capped and heralded as successes, have been extracted, because of the mischief they have done. Says the albumenizing effect is only a theory, and is not proved in practice. May save one pulp out of ten; but the nine will scare us out of the practice if we see them again. But says the troublesome ones do not return, they go to another dentist, and complain of the practice. He extirpates and is *always safe*.

Dr. Mills said if it is proved that *one* could be saved, it was evidence to his mind, that *many more* can be, based upon the *same principles* on which the one was saved. And believed it to be our *duty* to seek the *light*, and walk in it *willingly* and *faithfully*.—*Register*..

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## SELECTED ARTICLES.

### INFLUENCES OF DENTAL ORGANIZATIONS.

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

In considering this subject, if we look at the character and nature of dental organizations, we shall perhaps most readily discover the attributes that have an elevating influence upon the dentist, and through the individual upon the profession at large.

Whatever tends to educate man, tends to elevate him. This holds as good in the secular, as in the moral and religious concerns of life. In the degree that Dental Associations give the dentist opportunities for acquiring knowledge, they have an elevating tendency. That they do give him such opportunities, and that the influences are direct and potent for good, we think will not be difficult to show. Dental Associations are a stimulus to thought from the discussion of interesting subjects, pertinent to the profession, and having a direct bearing upon its practice, thereby reaching the vital part of every dentists professional life.

From the essay that opens the subject, through its entire consideration, every idea advanced is generally the result of practical knowledge. It is seldom that a crude theory is put forward, and if we put into intelligent practice the ideas advanced, they are sure to accrue to our benefit. Much that is eliminated may seem trivial and worthless until some sudden and unexpected dilemma may compel an application that will demonstrate a value totally beyond our expectations. Much good is

derived from the opportunities afforded for comparison, by which we are incited to greater effort from the natural desire to equal those who have from experience, made greater progress. Pride is stimulated and the result is seen in more elaborate operations, more careful attention to the details of general practice and a higher standard of excellence.

Following this naturally, and as a proper sequence, comes the increased value put on the services rendered, as an equivalent for increased effort; cheap professional services are generally worthless. An estimate of the progress of an occupation may be made by observing the quotation of its values. A just man demands compensation according to the character of the service rendered. What costs but little is generally disposed of cheaply. Excellence in dentistry necessitates great labor, as we all can testify, and when a person really attains that, he is not very likely to be found among cheap dentists. With a better compensation comes an increased desire to experiment with new appliances and inventions, to keep pace with competitors to accomplish greater results, and thus the original benefit is constantly increasing with compound interest. The clinics that now form a prominent feature of Dental Associations have given a practical impetus and influence to the profession that has resulted in much good. What a man sees with his own eyes he can frequently avail himself of, whereas he is often totally unable to get the least benefit from the abstract consideration of the subject. As a medium for the illustration or demonstration of new systems or ideas, the clinic is invaluable, for many lack the power to express properly in words what is perfectly familiar to them practically. In the clinical department, the Dental Association takes the character in a measure of a Dental College it has been the only school for many a *good operator to-day*. Many a difficult problem has been solved in operative dentistry, from a few ideas gathered at a clinic.

There are many operators who excel in special operations, but our profession not having got to that point where it can support specialties, it is necessary that the dentist should be as well informed in all points of his profession as is possible. Now the influence of Dental Associations is to generalize practice, not at the expense of that which is already satisfactory, but by affording an opportunity to acquire information on points that are lacking, and the dentist is enabled to add many operations to his practice that he has hitherto been compelled to avoid.

The subtle influences arising from the social character of Dental Associations have much to do with the benefits derived therefrom. "Ye dentist of ye olden time" was a good deal of a hermit, bottling himself up and looking with suspicion at the approach of anything like



fraternity on the part of his neighbour, fearing for the safety of his long cherished secrets in method or operation, and trembling with apprehension of some deep design. The days of private laboratories and operating rooms are over; the social influences of the Dental Association have softened the asperities of professional life, and brought about an era of good feeling and fellowship that ages of isolation could never have accomplished. The dentist finds that he is one of a numerous family, the members of which are dependent on each other for the greatest good to each. He realizes that isolation is a source of weakness that to exclude himself and what little he does know, is more injurious to himself than others. The social phase brings out all this, opens the heart, displays the best side, and develops the better nature. The class must be elevated through its individuals. Men come out the strongest under social inspiration, the wits are sharpened and all the faculties are keener; and he who has a problem to solve can go from social intercourse with renewed vigor and better hopes of success. At no time in the history of dental science has the profession made such sure and rapid progress as since the inauguration of dental societies. This progress cannot be attributed to our Dental Schools, for not one dentist in a hundred ever attended one. To Dental Associations we owe our code of ethics; to them we owe our legal status, and a thousand influences that have made us better operators and developed a professional manliness that was once unknown. Let every man, then, give heart, voice and time to sustaining these most important institutions, and the dentist who sees nothing good in them, and holds himself aloof, will find to his cost that he has missed golden opportunities.—*Dental Advertiser*.

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#### WHY DO WE NOT INSERT MORE PIVOT TEETH ?

BY GEO. A. MILLS, BROOKLYN, N. Y.

This question suggests itself to me from the results so often noticed in the removal of the roots of the front teeth, I am fully aware that no little prejudice exists with both patients and the dentist respecting the exhibition of gold in the mouth, where the teeth are much restored in their contour. Now, the coolness with which many advise the extraction of fractured teeth the gold will show, is painful to think of; far better that it should, because until dentists, as a rule, supply much better substitutes than they do. Is this course pursued from a conviction that it is the best that can be adopted? I think not. It is my opinion that it is done to make our practice less burdensome, and with the belief that plate work will come to our relief.

Sad relief to a cultured eye or to acute sensibilities! Does a metallic, rubber, or other base, improve the condition of things? Is it better that the mucous surface of the mouth should be covered with a foreign substance of any description, and the whole expression of the face changed by the removal of roots in the most expressive portion of the mouth? In a large proportion of these cases they can be treated in a manner that will do away with the necessity of extraction and the introduction of plates. If the crowns of these teeth must be sacrificed by prejudice, neglect and bad dentistry, why not retain the roots clean, and make healthy, and fill the canals as solid as it is possible, giving a firm basis on which to set well-selected and arranged pivot teeth? Giving greater satisfaction than any other substitute arranged on plates of any material. I am well aware that many seeming objections will present themselves on the introduction of this subject; but they are answerable more to bad dentistry than to any other cause. I can refer to a few cases with satisfaction, as a proof of what has been and may be done with intelligence and care. The failures have occurred more from a want of thoroughness than for any other reason. It is true that circumstances will indicate more than one way of procedure; for instance: when the case will not admit of the root being filled with gold because of its weakness, there are materials that prove efficient for terms of years, and give more comfort than plates can do.—*Cosmos*.

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#### ON BICHLORIDE OF METHYLENE AS AN ANÆSTHETIC.

BY S. JAMES SALTER, ESQ., M.B., F.R.S., DENTAL SURGEON TO GUY'S HOSPITAL.

I am anxious to direct the further attention of the profession to the bichloride of methylene as an anæsthetic for operations on the teeth; because, from personal experience, I am convinced of its great excellence, and because I feel sure that exceptional circumstances have stood in the way of its fair appreciation. My especial object in sending this communication to the 'Dental Journal' is to induce my professional brethren to try it for themselves, and I believe (if so tried) its many advantages will soon become manifest.

The time when the methylene-chloride first came into use was singularly unfortunate. The protoxide of nitrogen had then been in vogue some little time, and its advantages were keenly appreciated by those who required a quick, easily administered, and safe anæsthetic. The tedious, distressing, and often noisy exhibitions, which chloroform had entailed, had thus been satisfactorily superseded, and a very large number of practitioners were in the daily habit of employing the nitrous oxide to extinguish sensation during the otherwise painful operation of tooth-

extraction, were at home with it, and used it fearlessly and with comfort. And there is another circumstance which has certainly not contributed to an even competition between nitrous oxide and the methylene bichloride. For when the latter was advocated for the first time there were large material interests involved in sustaining the supremacy of the nitrous oxide. I would not suggest that anything unfair has occurred on this score; but material interests are, often without intention, very influential; and one is apt to regard a boon, which has been costly and difficult of achievement, with higher consideration than one which is simple and inexpensive.

In the manufacture of nitrous oxide there has been very considerable outlay, and much costly apparatus has been devised to meet the peculiar physical conditions of the material employed, and it is not likely that such ventures and such employment of capital would be freely yielded to a simple and unpretending competitor. Still, I venture to think that, when these two rapidly acting anæsthetics are fairly tested and honestly compared, the methylene chloride will be generally preferred for operations on the mouth. And I suspect that, if the methylene had been much used and had become familiar before the nitrous oxide, we should have heard little of the latter.

In using the anæsthetic I have always had the assistance of my friend Mr. Rendle, the Surgical Registrar of Guy's Hospital, who has administered it more than 350 times without an untoward case. No doubt the rapidity of its action depends somewhat upon its mode of inhalation; but this is not all. It has been supposed by some that the drug sold as bichloride of methylene is really a mixture of chloroform and ether; but, certainly, such is not the case with that employed by Mr. Rendle for my patients. That which we now use is prepared by Messrs. Hodgkinson and King, and is a constant body, having a specific gravity of 1.350 and a boiling point 120° F. Its formula is  $\text{CH}_2\text{Cl}_2$ .

The physiological effects of the methylene are totally distinct from those of nitrous oxide gas, and more nearly approach those of chloroform. But there are characteristic and important differences from the latter. The stage of excitement is usually wanting, or nearly so, and the patient passes rapidly from consciousness into a state of silent and quiet insensibility. There is one point of much interest and importance, namely, the long sustentation of the insensibility in comparison with the brief time in which it is being induced. A patient will often remain insensible to pain for four or five minutes, when the breathing of the vapour has only occupied a minute and a half. Again, nausea is not common, and vomiting very rare indeed. I have not seen a case. Indeed, *as a rule*, there are no distressing after-effects.

Then the method of administration is singularly simple. I believe it originated with Mr. Rendle. A stiff leathern cylinder is employed; it is about five inches long, three and a half in diameter, and somewhat flattened laterally. One end is open and fits over the patient's mouth and nose; the other is closed, but perforated with some twenty small holes to admit a little air. Hanging into the cylinder from the open end is a bag of flannel, or some other textile fabric, into which the methylene is poured when administered. This simple apparatus is then firmly applied so as to embrace the mouth and nose, and no further air is admitted than that which passes through the small holes; unless, indeed, the patient exhibits signs of distress, when the inhaler may be slightly raised or tilted on one side and a little air allowed; but the patient is soon beyond the power of perceiving discomfort, and is ready for operation.

Of course, the size of the apparatus and the amount of methylene used must depend upon the age, &c., of the patient. A drachm is the dose for an adult. It is necessary to employ a gag, as with the nitrous oxide.

I might record a large number of illustrative cases showing the simplicity, the safety, and prolonged efficiency in operations of the bichloride of methylene. I will, however, only mention one (by no means exceptional) that I have had since I began writing this communication.

A lady came to me yesterday a journey of sixty miles: she inhaled methylene for ninety seconds, and was insensible for four minutes, during which time I extracted five teeth and one bicuspid root. Further proceeding was suspended from the bleeding. She rapidly recovered, and, having done some shopping, returned the same journey to the country, and came back to me this morning, when she again inhaled methylene, and became insensible rather more rapidly. I then removed the remains of four wisdom teeth, two bicuspids, and five separate molar fangs. She regained consciousness in about five minutes; but, feeling somewhat exhausted (she was rather delicate, and was fatigued by her three journeys), she lay on the sofa a short time and had some sherry, when she recovered; and, having paid some calls in town, returned the same journey to the country. The lady was alone, and made her first return journey, and started for the second with perfect comfort, and as if nothing had happened. There was but one inhalation on each occasion, and the operations were performed without hurry or need for hurry.

Now, I would ask any candid person if all this could have been effected with nitrous oxide as well? or could it have been done under the prolonged action of chloroform with equal facility and absence of attendant and after discomforts?

In thus advocating the claims of the bichloride of methylene, I hope

I have not said too much. I have no object or intention in doing so; but, having strong convictions on the subject, I wish that the anæsthetic may receive wider and more varied test.

Surely it will be conceded that it is an enormous advantage to have an anæsthetic which is a *liquid* in all possible atmospheric temperatures; and one which, while simple in its application and rapid in its action, is sufficiently protracted in its effects to allow of repeated operations, and to afford time to meet those casualties and unexpected occurrences which will occasionally arise even in the simplest operations.—*British Journal of Dental Science.*

### [ON BICHLORIDE OF METHYLENE.

BY C. SPENCE BATE, ESQ. F.R.S., L.D.S., &C.

In the report of the proceedings of the Odontological for December, p. 17, "Dental Journal" for January, is the following passage by Mr. Braine:—"Bichloride of methylene had not shown such good result as the gas." Both nitrous oxide and methylene have now been before the profession long enough to have their respective characteristics fairly appreciated. Either or both have respectively sufficient anæsthetic power to deserve the confidence of the most cautious; but I was certainly not prepared for the statement made by Mr. Braine that "methylene had not shown such good results as the gas." According to my experience with both I certainly prefer the methylene to the gas, and chiefly for this reason, that while under gas the pulse lowers considerably until sometimes it is almost lost; under methylene it increases, but not to an extent that raises any anxiety.

In speaking of the relative safety of anæsthetics, it must be remembered that those who practise in the provinces have not the advantage of a person like Mr. Braine, who wholly gives his attention to anæsthesia as a specialty. It is, therefore, highly important that the agent employed should be one that requires not that close and anxious attention that a rapidly lowering pulse demands. It is true that, although thousands of persons have been put under the influence of the gas, for the extraction of teeth, not a single death has occurred. This is a statement not to be overrated, yet there are numerous cases well known to the profession in which restoration has been most difficult; and artificial respiration has been frequently had recourse to.

Mr. Braine also remarks that "when children cry when the face-piece is applied they fall more rapidly under the influence of the gas, and the administration should be stopped short of complete insensibility, or symptoms of danger suddenly supervene." According to my experience

with children, there is but little risk with methylene. It was not long since a child, a boy about four years of age, was brought into my operating-room crying lustily. I did not time the operation by my watch, but I believe that I am correct when I say that the child was made insensible, two molar teeth were extracted, and he was awake again within thirty seconds.

At the Dental Dispensary in this town, with the assistance of Mr. Connell Whipple, when methylene was first introduced, I put off fifteen persons, extracted seven teeth during the hour or hour and a half that I attended, and all the patients walked away without the least disagreeable symptoms.

Since the methylene has been in use I have not had a case that could have given the most cautious operator the least cause for anxiety. Sickness is the only disagreeable accompaniment that I have seen, and that has generally been avoided when an appointment has been made beforehand, and the patient has been cautioned against taking a full meal immediately before the use of the anæsthetic.

In the use of the gas the livid and discolored appearance of the face itself precludes the operator from determining the exact condition of the patient, and necessitates individual attention.

It is for these reasons that I have generally used methylene, and I certainly feel that my patient is freer from the small risk that accompanies anæsthesia while under its influence than when the gas is used.—*British Journal of Dental Science.*

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### BIBLIOGRAPHICAL NOTICE.

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RUBENCAME AND BARKER'S ILLUSTRATED CATALOGUE OF DENTAL MATERIALS, INSTRUMENTS, &c., 825 Arch street, Philadelphia, 1871.—The above enterprising firm have just issued a very fine catalogue of 184 pages, and as they give it gratuitously, we suppose no one will "refuse to take it." These catalogues in themselves are really instructive, and it behooves dentists who wish to keep up with the times to consult them, and moreover, to encourage these advertising ventures, so suggestive of the progress and life of the profession, and the liberality of the firms who publish them. We frequently find the easiest way to show the inventive life of dentistry to our patients is simply to hand them such a catalogue to look over. What other profession can parallel them? In addition to the catalogue, Messrs. R. and B. have appended an invaluable compendium of dental recipes and instructions for treating diseases of the oral cavity, &c.

## EDITORIAL.

### MEETING OF THE DENTAL BOARD OF ONTARIO.

The Dental Board of this Province met in Toronto on the 17th inst. The usual business of granting licenses to five years men and the examination of students having been completed, the subject of amendments to the Dental Act was taken up.

It will be remembered that, at the meeting of the Association in June last, the following resolution was offered by Mr. Chittenden, seconded by Mr. Jones:—That a petition be presented to Parliament at its next session, praying for amendments to the Act respecting Dentistry, and that the President appoint a Committee to draw up such amendments; said Committee to report to this meeting before its final adjournment. Carried." It will also be remembered that the mover of the resolution stated that, as whatever amendments should be made to the Act would affect all the members of the profession alike, he would strongly urge that such changes as might be deemed advisable should be carefully considered at that meeting, while such a large number were present. The President appointed Messrs. Leggo, J. W. Elliott and Clements, who drew up such amendments as seemed advisable to them, and presented their report on the last evening of the session.

The late Secretary of the Board, Mr O'Donnell, objected in very strong terms to its being received, stating that he had prepared a series of changes in the Act, which he was intending to present to the Board, which would meet all requirements and be perfectly satisfactory to all; and after a good deal of loud talking on the part of several, it was decided that the report should not be received. The Board met in July following, and an attempt was made to decide upon the necessary amendments; but, after a lengthy discussion, it resulted in nothing, and the matter was allowed to stand over till the meeting in January. Thus the matter remained till a few weeks before the time for the meeting of the Board in January, when the President, and one or two others, drew up and had printed another series of amendments to be discussed at the meeting, to a great part of which, no one, we think, could take exceptions. The number of the members of all future Boards was reduced from twelve to seven, any four of whom were to form a quorum. The time for the *first meeting* of the new Boards was fixed, and the meetings of the Board were to be held annually, on the first Tuesday in March, instead of semi-annually, as at present. Section 18 was changed, so that instead

of its being in the power of a magistrate to fine a person practising without a license any sum he might please, not exceeding twenty dollars, he would be obliged to fine him not *less* than twenty nor more than fifty dollars and the cost of the prosecution. It was also proposed to imprison the delinquent in case of default, for not less than one nor more than two months for each offence. It is hardly possible to suppose that the latter clause would be entertained for a moment by the Legislature, as the whole tendency of modern legislation is in the opposite direction, and as our medical friends have not been able to get such a law passed, it is almost certain that we could not. Several sections were devoted to Dental Schools, by one of which it would be in the power of the Board to open as many schools or colleges as the members might see fit. So far as we have been able to learn, no attempt was made to send a copy of these amendments to the different dentists of the Province for their approval. It was, in our estimation, so exceedingly crude, that we feel certain that a large proportion of the licentiates would disapprove of it if it had been passed.

Dr Fulton, with the assistance of Mr. Callender, drew up a College scheme which we think would be perfectly satisfactory in most of its provisions. It would require to be trimmed down somewhat, but, even as it was, it was infinitely preferable to the one presented by the President.

It provides for one school only, and that to be located in Toronto, where, we think, it should be, as that is the metropolitan city of the Province; and if carried out honestly in the interests of the profession, would give us an institution of which we should all feel proud.

It was, however, after some discussion, thrown out by a majority of the Board, and the former one adopted, and carried to Dr. Boulton, M.P.P., the gentleman who has hitherto so kindly and successfully managed our affairs in the legislature, who declined to take the matter in hand, as he did not think that that was an expression of the wishes of the majority of dentists of the country, and, furthermore, advised that the subject be brought before the Association at its next meeting, where it should have been discussed in the first place. We are very thankful to Dr. Boulton for the course he took in the matter.

As we are nearly all agreed as to what is required in all respects, except the College question, we hope that each and all will look at the subject in all its bearings, between this and the meeting of the Association and be decided to give an opinion in the matter. This, we are convinced, will be the only subject about which there will be division of opinion. It is hardly possible to think that any one will be willing to



see the school carried on for another year in the loose manner that it has been for the last two years, and it would be far better to let it drop entirely than to have it carried on as it has been. We do not find a word of fault with the teaching department, for we are satisfied that the teachers have done their best under the circumstances; but, so long as there is no recognized head to the institution, it will be impossible to carry it on successfully.

C. S. C.

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#### POOR NOVA SCOTIA.

We are deeply moved by recent news from Halifax, and now that the "Blue Noses" are part and parcel of ourselves, our interest in them has increased. But, alas! what has poor Nova Scotia done that she should continue to be afflicted with that little quintessence of quackery and rascality styled De Chevry, who, it appears by the *Acadian Recorder*, recently appeared in Halifax in a sleigh drawn by four white horses, and "lectured" a gaping crowd against the passage of a law in Nova Scotia incorporating the dental profession. Surely the most untutored legislator in the Nova Scotian Assembly will need no further argument in favor of a Dental Bill than De Chevry's last exploit; and we have sadly over-estimated the intelligence of our "Blue Nose" legislators, if they do not comply with the appeal of Dr. Cogswell and other respectable practitioners, and pass a law which will rid their province of all such quacks, as effectually as St. Patrick cleared the snakes out of Ireland. We hardly think the incursions of the Yankee fishermen half as detrimental in the long run to the Nova Scotians, as the presence of that miserable little whelp, De Chevry, who has destroyed enough teeth in this city alone to build him a monument. We pity poor Nova Scotia, and will gladly sing out "Hurra!" when a Dental Bill is passed.

B.

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#### THE VERY LAST TIME.

In the last number we enclosed bills to all those who have not yet paid their subscriptions for this volume, and we wish to give notice that this is *the very last time* we will dun. Those who do not value the journal sufficiently to comply with our terms,—and which are only the terms of all other dental journals—are not worth troubling about, and after this number we will positively not send it to a dentist in the country who does not choose to pay for it. We said before, that any having compunctions against paying in advance, might

at least write and say so. But we are heartily sick of dunning, and we feel that those who do pay, do not get equal justice when those who do not, receive the journal just as regularly.

B.

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THANK YOU FOR NOTHING.

As we anticipate that this number will end our acquaintance with those subscribers who have graciously condescended to take the CANADA JOURNAL OF DENTAL SCIENCE out of their post office since its foundation, and who have overlooked the trifling matter of their subscriptions, we feel it incumbent on us to return them very heart-felt thanks for the encouragement bestowed. Their constant favorable reception of the Journal augurs well for dental literature in Canada.

We hope to be in a position next year to reward such munificence, by giving a sewing machine or a grand piano to each one of these generous souls who will take the next volume gratis, postage paid. Certainly, such support is worth bribing.

B.

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KEEPING SPECIMENS.

Every dentist should zealously preserve any interesting specimens of abnormal dental development or disease which he may have the luck to obtain, and either form a private museum to which his *confreres* and patients could have access, or present them to the museum of his Association. For many years we have kept every case of exostosis, osseous union, necrosis, ossification of the pulp, peculiar growth, arrested development of the teeth, &c., and have found them very useful as instructors, both for ourselves and patients. The benefits to be derived from such a collection is incalculable, if a proper system of classification and arrangement is observed, and the data of each case affixed at once, when the circumstances connected with it are fresh in the memory. By aid of a microscope—which every dentist should possess and understand—the structure of these specimens may be examined, and an insight obtained which no other means can give. However perfect one's memory, or imagination, neither can be trusted to give any adequate idea of the hidden structure of these cases; and personal examination should never

be omitted for second-hand testimony or opinion. Too many cease to be students just when they ought to be most zealous, and forswear earnest study just when they most need it. Particularly in the diseases and abnormal growths coming under the observation of the dentist, do we find an easy satisfaction with what the text-books say, and not enough of that critical research and minute examination without which knowledge cannot be thorough. Some have no taste for such investigation. That is the very best reason why they should begin to cultivate the deficiency.

A great deal might be said in favour of this subject had we time to discuss it fully. There is one point of importance, however, which must not be forgotten. Too frequently many yield to the request or demand of patients and give up rare specimens which have been removed in their office, and seem to take it for granted that the patient is the legitimate possessor. In a legal point of view, possibly the patient has a claim to his own excrescences, but we think the dentist is as properly entitled to specimens of dental disease and development, which cease to be of use to the patient, as the surgeon is to osseous tumours, stones from the bladder, and the various growths which form so interesting a collection in the surgeon's museum. Last week we saw a boxful of pins, stones, needles, bullets, buttons, &c., which one surgeon had removed during an extensive practice; and almost every physician keeps every rare specimen, or contributes it to a museum. It is, of course, understood that these specimens contribute to the study of our profession, and are not kept for any pecuniary or other selfish motive. In this way every dentist may accumulate a little museum of his own, or help to build up a general one, far more useful to him than collecting coins and postage stamps.

We trust these few desultory remarks may stimulate our readers to keep their specimens, and, moreover, to read up and investigate their various physiological and pathological associations.

B.

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#### ILLUSTRATIONS.

Several illustrations are held over, waiting for the matter to accompany them. We have in preparation a full page portrait of Dr. A. Bernard, the oldest living dentist in the Dominion, which we will give in the May number.

## NUNS AS DENTISTS. WHAT NEXT?

We are greatly surprised to learn, on the very best authority, that the nuns of several of the Convents on the Island of Montreal are in the habit of filling decayed teeth for the girls under their charge, and receiving fees for the same.

We were not before aware that this constituted a part of the duties of these estimable ladies, and we would most respectfully venture to point to the impropriety of meddling in a matter they do not understand. A number of the young boarders have had their teeth completely destroyed by this primitive dentistry, and we suspect that the parents of these young girls, who reside at a distance, and many of whom would spare no expense to have their teeth properly treated, will not have their confidence in convent life increased thereby.

The nuns are just as proficient, and ten thousand times more conscientious, than those dentists who make a specialty of low prices and bad work, and whose bad work may possibly have induced the nuns to try "their prentice hand;" but, while there are *respectable* French and English dentists in Montreal, there is every good reason why the whole care and treatment of the teeth should be left to regular practitioners.

We would also urge the propriety of discretion in the selection of dentists to attend the teeth of these young ladies. We are aware that some of them have fallen into the hands of the Philistines or "cheap dentists," who, of course, do them more harm than good. Between this class of dentistry and that now being introduced by some of the ladies of the convents, we predict some pretty specimens of workmanship, and, possibly, some few actions for damages.

B.

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 MISCELLANEOUS.
 

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PROFESSIONAL CACKLERS.—The following extract from the *Pacific Medical and Surgical Journal*, will apply to the chronic grumblers, disappointed "expositors," and other such nondescripts, found in the dental as well as the medical profession.

"There are some men in the profession who make a specialty of cackling. They cannot live in peace with their brethren; their nostrils are constantly penetrated with rank smells; they seldom unite with medical associations, for the reason that certain members are obnoxious to them. Should they join, their first act is to nose out some peccadillo of a fellow

member and raise a fracas. So full are they of the spirit of clique that they see, in all directions, cliques which have no existence but in their own brain. They declaim perpetually about enmities and discords, until they give the impression that the profession is a jumble of strife and faction. Should they ever make an honest attempt to correct an evil, they mar, instead of mending. Blind to the good qualities of others, they have a microscopic perception of faults. Wherever they go, they carry an atmosphere of discord. One such individual will destroy the peace of a society or a neighborhood. He works by physical catalysis, poisoning all with whom he comes in contact, and leavening others into his own vicious nature. Every large city has one or more such pests in the profession. What they are good for we have never yet been able to perceive. That they were created for any good purpose does not appear, unless on the general principle that "nothing was made in vain."

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#### NITROUS OXIDE IN GENERAL SURGERY.

A report of the administration of nitrous oxide gas for excision of the entire mamma is of special interest, inasmuch as it is the only one on record. Inhalation occurred at intervals for six minutes and fifty seconds; and the gas was shut off for one minute and fifty seconds. The operation was conducted in the usual manner, and from the first inhalation to the close of the last manipulation the entire time occupied was eight minutes and a half. The general appearance of the patient did not differ from that usually observed under the influence of anæsthetics, and her condition after the operation, she expressed as quite comfortable, and without assistance walked from the operating ward to her room. This is no doubt the fore-runner of many such attempts at employing the gas as a narcotic in other operations than those of a dental nature, but its success in cases requiring more time than the one above given may not be as satisfactory.—*Medical Independent.*

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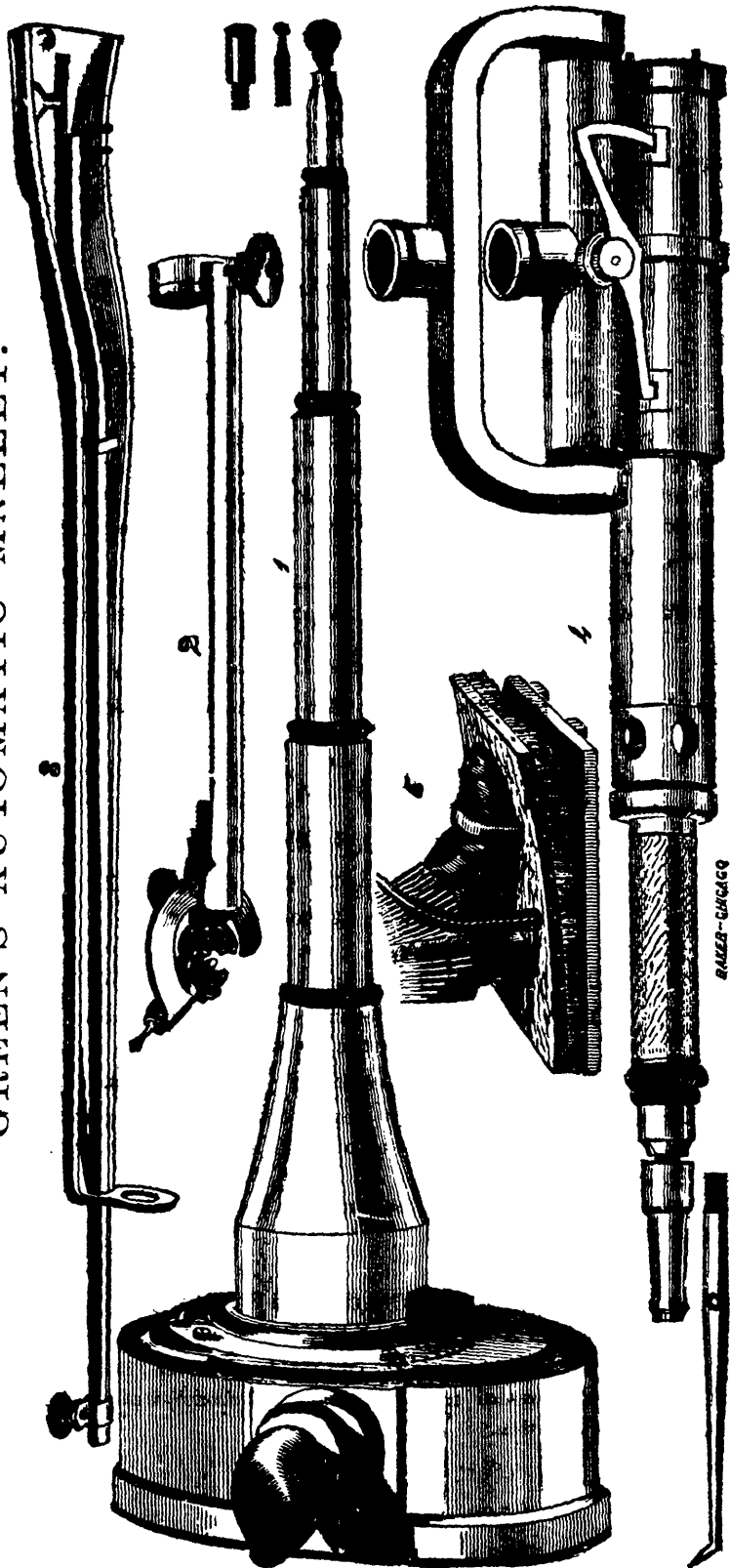
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**GREEN'S PNEUMATIC BURR, DRILL, FILE CARRIER, POLISHER AND UNIVERSAL JOINT.**

ALSO

**GREEN'S AUTOMATIC MALLET.**



A careful examination of the accompanying diagrams will satisfy every practical dentist, that in the production of these instruments, the inventor has fully succeeded in supplying a want long felt by the profession. By their use tedious and laborious operations, such as usually require hours of arduous toil on the part of the operator, and entail like hours of painful positions, taxing to the uttermost the endurance of the patient, are now performed in a few moments. Multitudinous as have been the inventors of agencies for saving labor and alleviating pain in the practice of *Operative Dentistry*, but few, if any, have succeeded in perfecting a piece of mechanism that would, in its operations, even approximate the excellence of the usual hand process, and none have reached the acme of success as has the inventor of these instruments; for with these the work is not only well and quickly done, but more perfectly executed than can possibly be done by any instruments formerly in use. This fact is fully corroborated by the following named Dentists, who, among others, have used these instruments with admirable success for the past three months, and to whom I will take the liberty to refer you for any information in regard to their usefulness and efficiency:

|                                       |                                      |
|---------------------------------------|--------------------------------------|
| Dr. W. H. Atkinson, New York.         | Drs. Rambo & Reese, Montgomery, Ala. |
| Drs. Dwinelle & Hodson, "             | Dr. F. L. Ulmer, Selma, Ala.         |
| Dr. A. C. Hawes, "                    | Dr. W. H. Burr, Madison, Ga.         |
| Dr. J. H. Race, Brooklyn.             | Dr. W. H. Morgan, Nashville, Tenn.   |
| Dr. F. N. Scabery, Providence, R. I.  | Dr. W. M. Butler, Louisville, Ky.    |
| Prof. H. Judd, St. Louis.             | Dr. A. T. Metcalf, Kalamazoo, Mich.  |
| Dr. H. J. McKellops, "                | Dr. E. S. Holmes, Grand Rapids, "    |
| Dr. Edgar Park, "                     | Dr. S. L. Judd, Beloit, Wis.         |
| Dr. H. E. Peebles, "                  | Dr. Geo. P. Kingsley, Freeport, Ill. |
| Dr. H. S. Chase, "                    | Dr. Geo. O. Howard, Galena, "        |
| Prof. J. Taft, Cincinnati.            | Dr. Chas. Henry, Jacksonville, "     |
| Dr. Will Taft, "                      | Dr. G. H. Cushing, Chicago, "        |
| Dr. P. G. C. Hunt, Indianapolis, Ind. | Dr. E. D. Swain, " "                 |
| Dr. J. P. Gillespie, San Francisco.   | Dr. J. C. Dean, " "                  |
| Dr. Chas. E. Blak, "                  | Dr. M. S. Dean, " "                  |
| Dr. Beers, "                          | Dr. W. A. Stevens, " "               |
| Dr. E. A. Laurence, New Orleans.      | Dr. W. W. Allport, " "               |
| Dr. J. A. Thurber, "                  | Dr. J. N. Crouse, " "                |
| Dr. J. B. Patrick, Charleston, S. C.  | Dr. E. Honsinger, " "                |
|                                       | Dr. A. W. Freeman, Chicago, Ill.     |

### DESCRIPTION OF INSTRUMENTS.

Fig. 1 represents the Pneumatic Engine, with the Burr attached. These Burrs are various in size and shape, and are made to revolve with a velocity of from twelve to fifteen hundred revolutions per minute, but can be so controlled by the operator as to move as slowly as may be desired. By use of the "Universal Gear joint," (Fig. 2) which is readily adjusted to the apex of the Shaft of the Engine, the Burr or Drill may be placed in any position upon the tooth, and the most difficult posterior cavities may be worked with the same ease and certainty as those of more easy access, upon the grinding surface.

Fig. 3 is an attachment to which a reciprocating movement is given by the Engine. To this can be attached a file for separating the teeth or cutting approximate plugs, and also a piece of wood in place of the file, for polishing approximate surfaces. This file or polisher has a motion of twelve hundred strokes per minute.

Fig. 4 shows the Pneuma-automatic Engine and Mallet combined. The Mallet is worked by the same motor, and will give either a hard or soft blow, and as fast or slow as may be desired.

Fig. 5 is a diminished representation of the Pneumatic Motor with rubber air-conductor attached. This apparatus is twelve inches long, seven inches wide, and two and one-half inches deep. It is placed on the floor and worked by the feet of the operator, and affords ample power for the propulsion of either of the instruments.

With the exception of the Motor, the accompanying cuts represent the full size of the instruments and their attachments. Accompanying each case is a full set of six finishing and two undercutting burrs, two drills and two polishing sleeves, with full directions for use. Accompanying the Mallet are twelve points, assorted. These instruments are all constructed under the personal supervision of the inventor, are neat in appearance and of the most perfect mechanism; each integral part fitting to its appropriate place perfectly.

Price of Burring Engine and Mallet, all complete, with Case, \$100; or, without the Mallet, \$75. Sent free per express all over the United States east of the Missouri River.

All orders or letters should be addressed to

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Room 4 Opera House, Chicago, Ill.

# CHANDLER'S Canadian Dental Depot,

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The oldest and most extensive Establishment of the kind  
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I AVAIL myself of the opportunity afforded by the *Canada Dental Journal* to express my thanks for the liberal patronage I have heretofore enjoyed from the Dental Profession, and trust by promptness and attention on my part to merit increased favor in future.

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My Stock consists of a Large Assortment of all

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The Catalogue of any Manufacturer or Dealer in Dental Goods may be used in ordering from me, and all goods will be sold as low as can be obtained elsewhere.

### DENTAL GOODS

AT WHOLESALE AND RETAIL.

A large Stock of White's, Justi's, Johnson and Lund's and  
other makers' Teeth always on hand.

Constantly on hand a good Stock of all the most popular makers,

## GOLD FOILS,

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Gold Preparations for filling, and at Manufacturer's prices.

I wish the Profession to distinctly understand that I intend always to be up to the times, in all the new inventions and improvements in all things pertaining to Dentistry.

Every article sold by me is warranted as represented, and in all cases, if not in accordance with the order, will be exchanged or the money refunded.

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TRY THE  
**EUREKA GOLD FILLING.**

SOFT, TOUGH AND ADHESIVE.

The superiority of this form of gold for filling is universally endorsed by the Profession as a better article than foil, it being tougher, softer, and at the same time adhesive. It is softer than the softest foil, and its adhesive qualities are perfect. The gold is chemically pure, and these essential qualities are produced solely by my principle of manufacture, whereby I preserve its crystalline structure unbroken and uniform. By its homogeneous condition I can guarantee its being uniform for

**THE QUALITY CANNOT VARY.**

It is sold in a very convenient form for manipulation, and each box contains a description of the gold and how to use it. For sale at all the Dental Depots.

PRICE, \$5 PER 1-8 OZ., \$38 PER OZ.

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 The superiority of Doherty's Rubber is so well known that commendation is unnecessary.  
 To be had in all the Dental Depots throughout the States.

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| Dental Rubber, No. 1.. | \$2 50 per pound. | Flexible Rubber..... | \$2 75 per pound. |
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| Black Rubber,.....     | 2 50              | "                    | "                 |



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**BEAUTIFUL COMBINATION**

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**Elegance, Strength, Naturalness, and Adaptation.**

**Dr. J. R. TANTUM & Co.,**

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**PORCELAIN TEETH,**

Address, 909 Market Street,

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We are now manufacturing teeth equal to the best of White's or Just's. We sincerely believe them more beautiful than the former and stronger than the latter. They are far superior to any ever sold at the same rates, in this or any country.

As an incitement to Dentists to try our teeth, we will sell them at the following EXTRAORDINARY LOW PRICES, FOR FIRST CLASS TEETH.

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|        |              |                                       |
|--------|--------------|---------------------------------------|
| 1 to   | 20 sets,     | \$1 96 per set, or 14 cts. per tooth. |
| 20 to  | 50 sets,     | \$1 68 per set, or 12 cts. per tooth. |
| 50 to  | 100 sets,    | \$1 40 per set, or 10 cts. per tooth. |
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| 500 to | 10,000 sets, | \$0 98 per set, or 7 cts. per tooth.  |

**PLAIN TEETH.**

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|--------|-------------|--------------------------------------|
| 1 to   | 100 sets,   | \$1 25 per set, or 9 cts. per tooth. |
| 100 to | 5,000 sets, | \$0 84 per set, or 6 cts. per tooth. |

**Gum Plain Teeth and Plain Plate Teeth** at the same rates as Gum and Plain Teeth above.

**REASONS FOR THE ABOVE STATEMENT.**

During the last year we have spent large sums of money in experiments, and in the study of chemical affinities, until the eye and tests demonstrate our teeth to be as beautiful and strong as any now manufactured.

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As much difficulty has been experienced by the profession in obtaining an excellent quality of RUBBER DAM, and having been applied to often for such as I am using in my own practice, and also that I might be able to supply the demand, I have had it manufactured in sufficient quantity of three grades of thickness, and will send it by Express C. O. D. to all ordering direct from me, at \$4 per yard.

I can recommend it as being very elastic and tough, and will not deteriorate with time.

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### SOFT, TOUGH AND MALLEABLE,

Can be made as ADHESIVE as desired by re-annealing. Receives our personal attention in refining.

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## S. B. CHANDLER,

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NEWCASTLE, ONT.

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### An Improved form of Tooth-Powder.

Unlike the Tooth-Powders commonly in use, this article is made into neat, portable cakes, divided into little tablets each of the right size for use, not liable to scatter or be wasted, and therefore very convenient, especially for Travelers. There is no occasion for dipping the brush into the box, thereby soiling what is not used, but a single tablet, enough for one brushing, may be broken off and put into the mouth; thus, several persons can use from the same box with perfect neatness and propriety.

It is made of the materials that were most approved of in the discussions of the American Dental Association at their Annual Convention, and is believed to be the best preparation yet produced for the teeth and gums. It has received the hearty approval of many leading dentists, to whom the formula has been submitted. The following certificates are submitted to those of the profession who have not had an opportunity of testing it.

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This is to certify, that, being personally acquainted with I. W. Lyon, D.D.S., of New York City, and having been informed by him of the precise ingredients composing the Dentifrice known as "DR. I. W. LYON'S TOOTH TABLETS," and having ourselves used the same, we do unhesitatingly commend it to the public as the *best and most convenient Dentifrice now extant* :

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WORLD'S FAIR,  
PRUSSIA, 1865.



WORLD'S FAIR,

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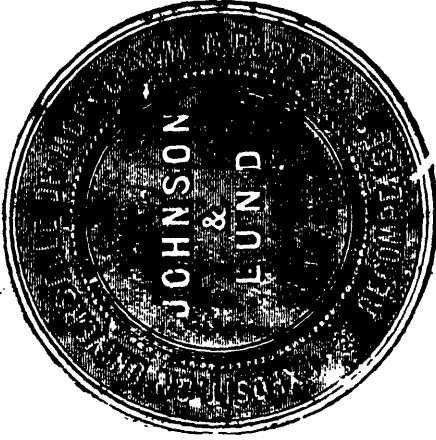
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MANUFACTURERS AND IMPORTERS OF

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AMERICAN INSTITUTE,  
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DEPOTS, 27 North, 7th Street Philadelphia,  
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Warranted superior to anything of the kind ever offered to the profession. Produces as sharp and perfect casting as any copying or type metal known. With care and experience plates may be cast so light and smooth as entirely to dispense with the use of burs and scrapers. For accuracy of adaptation, it is equal if not superior to any material in use.

It is tasteless and cleanly, and will positively keep its color in the mouth equal to the finest Gold or Platinum.

It is particularly adapted for full lower plates. For upper and lower parts of sets it has many decided advantages over the different cheap materials so much in use. In contact with aluminium there is no perceptible galvanic action or change of color. It receives a brilliant polish with very little labor.

Parties using this metal are not required to purchase a license. No additional apparatus required.

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| In 1 lb. packages.....             | \$6.00 |
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Each package accompanied with full instructions. Manufactured and sold by

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AND AT ALL THE PRINCIPAL DEPOTS.

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The following resolution was unanimously adopted at a regular meeting of the Bradford and Susquehanna Dental Association:

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216 North Sixth Street, St. Louis.

Dr. Weston:—Your metal is used and recommended by the Missouri Dental College to its students.

Respectfully yours,

**HENRY S. CHASE,**

Professor Operative and Surgical Dentistry.

OFFICE OF PERRINE & FRANKLIN, No. 115 W. 31st St.,

New York, March 1st, 1870.

Dr. H. Weston:

DEAR SIR:—We have given your metal a trial, and are pleased with it and the results. We believe for partial under cases it is superior to any other substance known to the profession. We can get a more perfect adaptation with it than with rubber, and all delicate points acting as supports, are stronger and more reliable than rubber. We have seen cases that have been in daily use since September last (now seven months ago), that show no evidences of oxidation—an important quality, and one that at first we had fears your metal did not possess.

The great facility with which your metal is manipulated into plates renders it an important adjunct to our list of materials out of which to construct dental plates, and other dental apparatus.

We shall take pleasure in recommending its use to our professional friends. You will please accept our thanks, and we doubt not you will receive the thanks of the profession for your successful efforts in bringing out so valuable a com-

pound, and the liberality with which you offer it to the profession is in striking contrast with past experience.

Yours truly,

GEO. H. PERRINE, D.D.S.  
B. W. FRANKLIN.

(From *American Journal Dental Science*.)

We have tested this metal in the case of entire lower sets, and are inclined to the belief that it is superior to anything of the kind which has yet been brought to the notice of the profession. We advise a trial of it by those who object to rubber. There is no doubt but that it is stronger, and will keep its color better in the mouth than any of the cast plates in use.

(From *Missouri Dental Journal*, May number.)

We have been using this metal for the past six months or more, with much satisfaction. It is undoubtedly one of the best substitutes for Rubber of which we have any knowledge. It is tasteless—does not discolor, or has not in any of the cases which have come under our observation; is more lasting than Rubber, and a plate of this metal will be found to fit the mouth as nicely as a Rubber plate can be made to do.

(From *Missouri Dental Journal*, Nov., 1869.)

This metal has been considerably used in this city for making both upper and under dentures, and has given very great satisfaction.

(From the same Dec. number.)

The cry, "What shall I do?" still comes to us, as some poor victim of the Rubber Co., who has been overlooked, is hunted up, and the strong arm of the law is raised to annihilate him. In reply, we say, try Aluminium—and Weston's Metal for partial or lower sets. We are induced to recommend Weston's Metal in preference to that known as Adamantine, (*Moffit's Metal*), or the Walker's Excelsior Base, because, from the tests we have made of these bases, this seems to us to promise the best results.

Compared with Rubber, this is superior in point of strength and durability. The Weston Metal has thus far proved as tasteless as Rubber. Patients who have tried Rubber, and been obliged to give it up on account of its effect upon the mucous membranes, causing inflammation and even sloughing of the soft parts, are now wearing plates of Weston's Metal with perfect satisfaction. So far as we have been able to judge, Weston's Metal is not affected by the secretions found in the oral cavity. It does not materially change color. It may, with care, be cast almost as thin as an ordinary gold plate.

WESTON'S FLASKS—ESPECIALLY ADAPTED TO CASTING PLATES.

Being longer than the ordinary Flask, it gives more room for the reservoir, posterior to the plate, which is the whole secret of casting perfect plates. The Flask is closed with a spring steel clamp, and stands on feet to facilitate pouring the metal.

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Issued monthly at \$3 a year, in advance.

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Dentists will find much of interest and usefulness in the above Journal.

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## Manufacturer of Porcelain Teeth.

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Having removed to the commodious building, No. 37 North Tenth Street, one door above Filbert, we are now prepared to furnish the Profession **TEETH** of superior quality, and in great diversity of form and shade. They are fully equal to any manufactured, and at

### Much Lower Prices than asked by other Manufacturers.

Our Vulcanite Teeth, Gum Sections and Plain, are all fitted with Double-Headed Pins, or Pins with a head on each end.

Our Upper Central Blocks have each Five (5) Double-headed Pins, and the Lower Central Blocks each Four (4).

We have a full and varied assortment of all kinds and styles of Teeth in use, embracing

|                                         |              |   |   |         |
|-----------------------------------------|--------------|---|---|---------|
| Gum Blocks or Sections for Rubber Base. |              |   |   |         |
| "                                       | Single Teeth | " | " | "       |
| Plain                                   | "            | " | " | Plate.  |
| "                                       | "            | " | " | Rubber. |

And being willing to share some portion of the profits with the profession, have concluded to offer them at the following prices, for cash only:

**Plain Teeth \$1 00 per set of 14 Teeth.**  
**Gum Teeth \$1 25 per set of 14 Teeth.**

And by the quantity at such prices as may be agreed upon. We solicit trial of our teeth. Satisfaction guaranteed or the money refunded.

H. C. CORFIELD,  
 No. 37 North 10th St., above Filbert,  
 PHILADELPHIA.



# OXYCHLORIDE OF ZINC.

This article has been in use for the last eight years; the call for the same increasing as its availability as a Medico-Mechanical agent has become known.

Similar articles have been brought to the notice of the profession under the names of Os-Artificiel, Osteoplastic, Bone Filling, &c.

We quote from the *Materia Medica* compiled by James W. White, and published by Samuel S. White, of Philadelphia :

" This preparation has been extensively tested as a capping or temporary filling over freshly exposed pulps, and with results which are represented as highly gratifying. For this purpose the solution should be diluted with water so as to be only just strong enough to cause the mixture to set. On its removal, months after, the subjacent-pulp has been found healthy, and even protected by a deposit of secondary dentine. The success which has attended its use gives hope of relief from the necessity of extirpating exposed pulps, when they have not taken on a highly inflamed condition. The cavity having been cleaned, creosote should be applied to the exposed pulp, and the oxychloride introduced in a semi-fluid state. The pain experienced varies in intensity. It is generally of short duration, but may in exceptional cases continue for an hour or even longer. The permanence of this material greatly depends on its being perfectly protected from the fluids of the mouth till it becomes quite hard (requiring about half an hour), which may be assured by any of the methods deemed most advantageous for preventing the ingress of saliva ; the rubber-dam, in this connection, as in the insertion of gold, proving a most valuable appliance. It is best to introduce a surplus of material, to admit of trimming to proper shape, which may be done at once, although it is advisable to cover it with a layer of gutta-percha in chloroform, and allow several days to intervene, for the more thorough solidification of the cap prior to the removal of the excess of material and final insertion of the metal stopping.

" There is another direction in which oxychloride of zinc proves a most valuable adjunct in efforts for the preservation of teeth, viz., in filling the bulk of cavities in treated teeth. By this method many advantages accrue, among which may be mentioned the saving of time and expense, with an equally durable result ; the diminution of the risk of periodontitis, so liable to supervene upon prolonged violence ; the avoidance of risk of fracture in frail teeth, and the equal support insured ; the obviation of the yellow color when the enamel is thin ; and, in the event of subsequent trouble, the comparative ease with which its removal may be effected. The gold must of course leave no portion of the oxychloride exposed.

" This material is likewise employed for securing the effects of chloride of zinc in the hypersensitiveness of dentine,—used as a temporary filling, and allowed to remain until, in the judgment of the operator, its effects are induced. Should tenderness recur in excavating, a second and even a third application may be found advantageous."

It has the entire confidence of many of the best men in the profession as a thoroughly reliable article. It is manufactured with great care and with uniformity, and is believed to be the best preparation of its kind in the market.

It is now put up in larger sized, glass-stoppered bottles, giving double the quantity that it formerly had.

For sale by all the principal dealers in dental materials throughout the United States and Europe.

Price, per box, \$1.00.

Prepared by

**J. H. SMITH,**  
New Haven, Conn.

**CHARLES ABBEY & SONS,**

MANUFACTURERS OF

**DENTISTS'**

**FINE GOLD FOIL,**

No. 230 PEAR STREET,

**PHILADELPHIA, PENNSYLVANIA.**

**OLD FASHIONED, (SOFT OR NON-ADHESIVE,)**

**FINE GOLD FOIL,**

**ADHESIVE FINE GOLD FOIL.**

For nearly fifty years our OLD-FASHIONED GOLD FOIL has been before the Profession, and has received the unqualified approbation of most of the best Dentists. Our

**ADHESIVE GOLD FOIL**

While possessing all the properties peculiar to that particular article, is free from the objectionable harshness or stiffness that characterizes so much of the Gold Foil that is offered as Adhesive. All our Gold Foil (Old-Fashioned and Adhesive,)

**Is Made From Absolutely Pure Gold,**

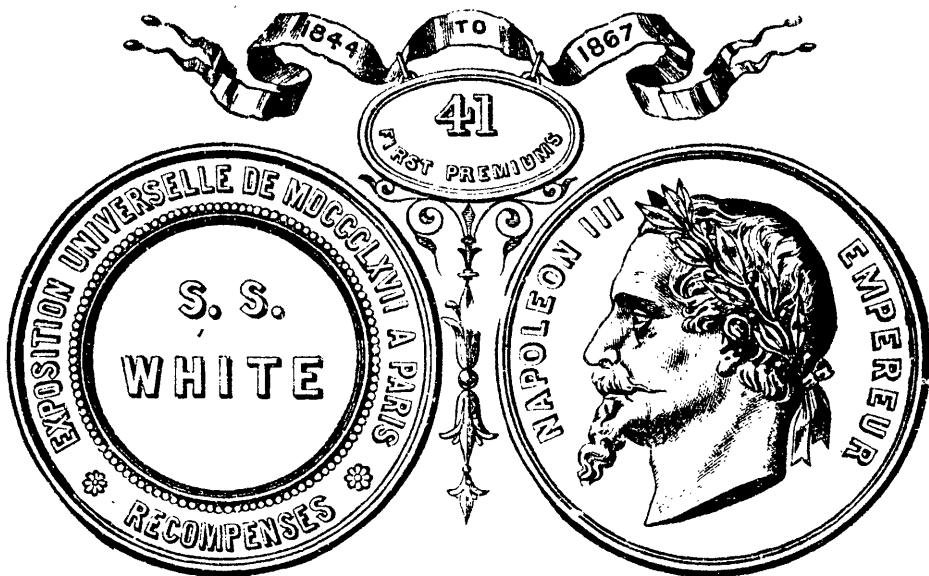
Prepared with great care by ourselves, and warranted to be as represented,

**Free from Alloy or Impurities of any Kind.**

**FOR SALE**

**AT THE PRINCIPAL DENTAL DEPOTS.**

OR ORDERS MAY BE SENT DIRECT TO US.



## ARTIFICIAL TEETH.

A GOLD MEDAL,  
THE FIRST PREMIUM, AWARDED at the PARIS EXPOSITION.

MORE PREMIUMS!

AT THE FAIR of the AMERICAN INSTITUTE, NEW YORK, OCTOBER, 1869,  
THE FIRST PREMIUM,

## A MEDAL & DIPLOMA,

Was Awarded to us for Improvement in Artificial Teeth.

## A GOLD MEDAL

Was Awarded to us by the FAIR of the MARYLAND INSTITUTE, BALTIMORE,  
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## FOR THE BEST ARTIFICIAL TEETH.

These Premiums were awarded for Improvements over all Teeth previously made, either by ourselves or others, and not merely for superiority over those with which they were in competition at the fairs.

The especial attention of the profession is requested to these Improvements, which were recognized by very able Committees as obviating the greatest remaining defects in Artificial Teeth for Rubber Work.

Of this Improvement the Committee of the American Institute say:

"In regard to the shape and insertion of the pin in the body of the teeth now manufactured by S. S. White, the improvement is manifestly great over those of any other manufacturer known to us."

### SAMUEL S. WHITE,

PHILADELPHIA, NEW YORK, BOSTON, and CHICAGO.