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Stephen Globusky L.D.S

DOMINION DENTAL JOURNAL.

VOL. VII.]

TORONTO, MARCH, 1895.

[No. 3.]

Translations.

From German Dental Journals.

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

KALIUM ARSENICOSUM.—A new dental anæsthetic, by Dr Bauer, Budapest. Amongst the large number of drugs and instruments used for anæsthetic or obtundant purposes, for sensitive or hyperæsthetic dentine, we have no sovereign remedy that will reach the end sought for, viz.: The painless excavating of cavities, but without any injurious effects, local or constitutional. I will not criticise the different drugs on the market. Most of you are acquainted with the defects of different ones.

What are the demands required from a dental-obtunder? (1) It should have no destroying effects on the mineral constituent parts of the tooth. (2) It should have no devitalizing effect on the pulp. (3) It should act promptly and with safety. (4) It should be of easy application. (5) Its application should be painless. (6) It should have no injurious effects, should any of it get on to the soft tissues or into the digestive-tract.

After a great deal of research and experimenting I have found a remedy which possesses the above qualifications. I will not discuss all the cases in detail. No doubt, the gentlemen will try it for themselves, but I wish to give a few hints as regards the application, etc. After the caries of a cavity have been removed as much as can be done without pain, with the excavator or warm-water, the cavity is protected from saliva and dried. The pellet of cotton containing the obtunder and placed into the cavity is prepared by dipping it into a weak solution of carbolic acid, or even water, and then pressed on a towel or napkin to remove as much

of the moisture as possible ; it is now dipped into the powdered Kalium Arsenicosum, and before withdrawing from the bottle knock off the surplus powder, place it into the cavity, and spread with a ball-pointed plugger, after which seal the cavity with a cement filling, or even in some cases wax will answer. The sealing of the cavity is not done to prevent the drag from coming out, for fear of injury to the soft tissues, as it is harmless to them, but to prevent the saliva from getting into the cavity and diluting it. As it is soluble in water this would impair its effects. After a few hours its action is perceptible, but after twenty-four hours it is absolutely certain. In one or two cases, after twenty-four hours of application of the obtundant, it showed symptoms of slight hyperæmia of the pulp, but which disappeared without therapeutic treatment, simply leaving the tooth alone for a day or two. I have had good success in very young as well as with older patients. I have placed a large quantity of the drug into the cavity of a central incisor of a girl of sixteen years of age, and left it forty-eight hours, covered with Fletcher's cement, without any evil effects, and was able to excavate and fill the cavity, in one sitting, when, before the application, it was so painful that I could not touch it with an instrument. Four months have now passed (August, '94), during which I have seen the patient several times, and we are both satisfied with the filling.

In what respect does the Kalium Arsenicosum fulfil the foregoing conditions : (1) From its chemical nature it has no decomposing influence on the salt of the dentine. A very thin piece of dentine placed into a fifty or one hundred per cent. solution of the drug for three days underwent no change, either in weight, shape or surface. (2) As before-mentioned, it has no devitalizing effect upon the pulp ; and the trivial symptoms of slight but quickly disappearing hyperæmia are very seldom. On experimenting I have placed it on to a largely exposed pulp, three or four times, at six to eight hours' intervals without the slightest diminution of the sensitiveness of the pulp. (3, 4, 5) I may remark that the easy application, painlessness and certainty of effects have been proven, both by experimenting and in practice. (6) It is not a caustic. It does not corrode the soft tissues of the mouth ; it acts upon the mucous membrane the same as any other indifferent salt, such as table salt, natr. carbon. or magn. sulph. Should it get into the stomach the quantity required to obtund a tooth is so small that it would have no effect whatever. A good-sized pellet of cotton would contain about three-fifths mgm. of the drug, whereas the human system can safely take from one-half cgm. per dose. It can therefore be used with impunity, more so than arsenious acid, which surely is not an innocent drug. The Kalium Arsenicosum does not discolor the teeth. It is only used to anæsthetize the dentine, and in no wise to devitalize the pulp. You will therefore distinguish in exca-

vating a cavity whether the pain arises from hyperæsthetic dentine or pulp exposure. I trust I have found a remedy which will be of benefit to both operator and patient.—*Journal für Zahnheilkunde*

CHLORIDE OF POTASSIUM.—Dr. Unna uses chloride of potassium for affections of the mouth in a tooth powder form with a tooth brush. He says he knows of no remedy that will remove the *foetor oris* so thoroughly and quickly as the above. He has had the most satisfactory results, not only in stomatitis, but also in diseases of the mouth caused by the formation of fungi. Being a neutral salt, it does not affect the teeth. In some cases it is advisable to use it full strength. In such cases, Dr. Unna advises to use equal parts of chloride of potassium, and a tooth paste made of carbonate of lime, rhizoma, iridis, soap and glycerine, making a 50 per cent. paste.

HÆMOSTATIC EFFECTS OF OLEUM TEREBINTHINÆ.—Dr. Sasso has had favorable results in testing the effects of oil of turpentine as a hæmostatic, and recommends this simple remedy to the profession. Bleeding after extraction of a tooth which would not yield to any other treatment was stopped by soaking a pellet of cotton in rectified oil of turpentine, and placed in the cavity in the alveolus. The bleeding of the gums in scrofula can be arrested by brushing the injured parts with the oil, and very small doses given internally. Prompt results were had in cases of vesical hæmorrhage by giving a spoonful every hour of a 0.5 per cent. mixture.—*Zahnärztliches Wochenblatt*.

CAJEPUT OIL AND GUTTA-PERCHA.—To fill cavities with gutta-percha that cannot be kept dry: the softened gutta-percha is touched with cajeput oil; this will make it adhere to the walls of the cavity, even under water:

RUBBER-DAM CLAMPS.—To adjust rubber-dam clamps painless, slip over their jaws small pieces of rubber tubing. There is another advantage gained by it—you are sure of a water-tight fitting around the tooth.

TO HARDEN PLASTER OF PARIS.—The *American Druggist* says: Add one-tenth per cent. of marble dust to the plaster of Paris, and mix with it about 6 per cent. of powdered alum or the same quantity of ammonia. These must be added before stirring with water.

A CUNNING FELLOW.—A gentleman walked into the office of an American dentist practising in Paris (but, as per report, was born not many miles from where his office is) to have his teeth attended to. The waiting-room was full of patients; nevertheless, he had scarcely seated himself, when the dentist called him into the surgery. In the operating chair was seated a lady ready to

take gas to have some teeth extracted. The dentist addressed the gentleman, "Step this way, doctor, if you please." He, being flattered at being called doctor, stepped up to the chair and witnessed the extraction of the teeth. After the operation, the lady withdrew from the surgery. "For your kindness," said the dentist to the gentleman, "I will now attend to you before those in the waiting-room who were here before you." "For what kindness?" asked the gentleman. "You see, we have so many patients, particularly ladies, who will not take gas unless there is a physician present. So I always call in any gentleman that happens to be in the waiting room, addressing him as doctor, and pocket the extra ten francs."—*Zahntechnische Reform.*

From French Dental Journals.

By J. H. BOURDON, L.D.S., Montreal.

NEW MODE OF ARRESTING HÆMORRHAGE.—Everyone knows that circulation of blood in the human organism has a pression higher than that of the atmosphere. Its pressure is maintained by the partition of blood vessels. The rupture of these partitions permits the blood to escape by the fact of its intra-vascular pression. According to a natural law, hæmorrhage will be stopped by a pressure exceeding that of the blood. For instance, if an hæmorrhage takes place after extraction of teeth, proceed as follows: To increase the atmospheric pressure is to puff the cheeks very energetically, and in a few minutes the blood will have ceased to flow. The explanation of this is by the fact that the blood overflowing in the vicinity of the ruptured vessels has made itself another way, and the extremities of these ruptured vessels in which the blood is forced by this exterior pressure, will bring them together and form an enclosure, preventing the escape of blood. The same method may be applied for a cut on a finger. Place it in the mouth, and increase pressure of air in puffing the cheeks.—B. HOFFMAN, Amsterdam, in *Progrès Dentaire.*

DECORATED.—The *Journal Officiel* published the following on the 16th of January: "Joseph Peter Michails, surgeon dentist, Knight of the Legion of Honor, American citizen, ex-professor of the Dental School of Paris. The honor was conferred in consideration of gratuitous services given to the poor during a period of twenty years, and also for a valuable work on Prosthetic Dentistry."

A special dental library has been organized by Ash & Sons, the object being to enable dentists to have the loan of treatises on dentistry. The novelty of the scheme is that the subscribers will be entitled to take the works home.—*Odontologie.*

TO PREVENT BREAKAGE IN TAKING PLASTER IMPRESSIONS IN A DIFFICULT CASE.—Before the addition of plaster to water, add some fine cut fibres of absorbent cotton. A small quantity will thus give more body to the plaster in the event of breaking. The fragments will not separate entirely, owing to the presence of the cotton.—*Odontologie*.

A TECHNICAL ADVERTISEMENT.—On a sign at Buci we read, "Dental Pulpi Clinic."—*Odontologie*. What next?—ED.

Original Communications.

Root-Fillings and Alveolar Abscess.*

By N. PEARSON, L.D.S., Toronto, Ont.

This is, perhaps, the most threadbare, worn-out and oft-repeated subject in dental literatures; so much so that it must be a very taking article, and embrace some new ideas or startling proposal, to command a passing notice to those familiar with the current ideas, as put forth in the journals and as taught to the classes by our professors.

I am not expecting to advance anything new or reform existing methods, but to state a few facts and convictions which have found emphasis by experience and favor by success.

I shall notice, in the first place, the case which is most easily treated and most favorable for good results, which is—such pulps as may be removed and the roots filled at one sitting. Mostly these occur in the ten anterior teeth, with occasionally molars with anterior or crown openings, especially of the inferior maxillary. By the application of cocaine crystals to the exposed pulp, in a few minutes you are able to remove the pulp to the least extremity. You may expect a flow of blood, which is soon controlled either by styptics or plugging. My advice in such cases is to use as little drugs by way of washing and dressing as possible; avoid all drugs if you can.

When the bleeding is quite done a very fine shred of cotton, saturated with chloro-percha, may be carried to the point of the root and disengaged from the brooch and impacted there. The root is now ready for filling in its larger extent preparatory for a crown or crown-filling as may be required. There is nothing in

* Read before the Toronto Dental Society.

my mind very essential as to what may be used to occupy the space, except a little common sense. I would strongly condemn arsenic or iodoform, carbolic acid or creasote, wood, lead, tin, gold or amalgam; I would recommend oxychloride of zinc or oxyphosphate of zinc, though I seldom use the latter, and gutta-percha.

The next case I would notice is such as would not be treated as in the first, where it is necessary to use a devitalizer and fill the root after the lapse of a few days.

My idea is that a devitalizer enhances the prospect of future trouble (not necessarily so) by—first, the chances of inflammatory action, and, secondly, by neglect of the patient to come promptly back again.

In using the devitalizer very great care is necessary as to quantity and leakage. If we use it with a free hand there may be more than a mere destruction of vitality in the pulp, and an inflammatory action produced bordering on periostitis or pericementitis, and in fact I am not begging the question when I say that very frequently I have seen such action produced which was hard to control, and indeed ending in loss of the tooth. A very common mistake made by young men, who have been under my own supervision, has been a tendency to overdo the devitalizing act, and afterwards to pile on the agony by the use of styptics and antiphylogistics, cauterants, counter-irritants and such stuff, enough to make a well tooth sick, when all that was required was time and nature and protection. After applying a devitalizing agent, which ought always to be done, with the dam on and the cavity sealed with very soft, almost flowing oxysulphate of zinc, it may remain from two to ten days, and after the removal of the pulp there is no advantage to be gained by the application of any remedy except the roots need sterilizing, in which case a wiping out with oil of cinnamon of required strength, eucalyptus or mercury bichloride, generally speaking, the thorough drying by heat will be found sufficient, and proceed to fill as in the first instance.

The third class of roots I shall bring to your notice is such as have putrescent or decomposed pulps, and have caused more or less periosteal irritation from being sealed up by natural or artificial causes. These usually respond to treatment by removing the cause and antiseptic applications, if presented at a reasonably early stage and a favorable constitution to rely upon. In such cases immediate root-filling is not wise, but by the use of peroxide of hydrogen and absolute alcohol or chloride of zinc, very sparingly applied, oil of cinnamon or some such germicide and antiseptic, along with heat and thorough drying, in a few days the canal can be filled; and here I will take the opportunity to say that after sealing up the foramen, as mentioned in the first instance, I have been for a long time in the habit of continuing the filling process by saturating in chloro-percha cotton fibre and covering this with

one of the zinc preparations, and finishing with a metal on the exposed surface. Not that this has any special bearing on the durability, sanitary or scientific aspect of the question. I am quite satisfied that my results were as good when I used oxychloride of zinc (which I did for years), but it has one advantage, which is that you can empty the root at any time and overhaul the work if necessary very much easier than with other agents. Another plan which I have found quite as satisfactory has been to use the percha solution after moistening the walls with eucalyptus or some solvent, and the solid percha cone or Gilbert's temporary stopping. So much for root-fillings.

Now, as to the abscess. Without going into the history of the production of it, which we have all heard time and again, and with the mere mention of the latest discussed point as to how the bacteria gets there, whether it is always in the blood, always with us and in the circulation, or insinuates itself into the parts after the inflammation is set up, and from the atmosphere or oral secretions, I find a difference of opinion among experts. I held the opinion—for argument sake, at all events—that no bacilli could be found in an abscess upon a tooth where no opening existed, until one higher in authority attempted to prove that a bacillus held the same relation in size to the tubuli of the dentine as a blood corpuscle held to my little finger, and I ceased to argue the point with him. If this is the case, then bacilli may be found in an abscess and present in pus at any stage, and the cause of much of our trouble. I am not going to engage in any bacilli argument, nor prove that they are the cause of abscesses such as we are called upon to treat.

If they are the cause, or the necessary outcome of a cause, we are generally called upon to treat the abscess after its formation by a destruction of the pus-producing surface. This we do by the application of styptics and stimulants, by germicides or parasiticides, by rendering the parts aseptic, and then inducing healthy granulation of new tissue to take the place of lost tissue. In doing this various remedies are resorted to, and to give the different treatments would fill a book, or nearly so. The most difficult case I find to treat is, perhaps, the one in which no external or alveolar opening exists, and on an inferior tooth.

In such a case, if of long standing, and the apical opening has proved of sufficient magnitude to accommodate the exudation by isolating the tooth and working a little hydrogen peroxide down to the seat of the trouble, and following with zinc chloride or mercury bichloride, using care in the quantity and strength, I am able to fill permanently in three or four days.

These cases require the utmost care, as too much medication will set up an irritation that is very hard to control, particularly so with a small foramen, and end in an external pointing or a constitutional derangement of no small degree, until carried off by the

circulation. It is sometimes advisable to enlarge the root opening in such cases to facilitate freedom of discharge, but not usually so, and better to be avoided, if possible, the natural opening as a rule being sufficient.

In the superior teeth, in which the discharge is escaping by gravitation from a sac, the case is much easier, and we may look for happier response to treatment by fewer external openings, and in either case the apex may be closed as soon as the discharge ceases to moisten or wet the cotton left in the root, usually from three to six days.

The great point to be observed is not to create such a disturbance as to bring about a periostitis that will lead to an external pointing. This cannot always be avoided, and is sometimes the only way, in fact, to end the trouble; and unfortunately it is the most frequent in such constitutions as are least able to bear with the infliction that the worst happens, for with a robust, vigorous and strong constitution the circulation is quite equal to the call, and avoids the worst features of the case.

In case of recent periosteal disturbance by swelling and soreness, and indications point to external discharge, the application of ice at one stage may, if persisted in, overcome the trouble; free opening of the bowels is of great assistance, alterations may be given, such as phytolacca, ammonium, chloride or sulphide and counter-irritants may be used with benefit, also hot foot-bath, but nothing can be relied upon in such case as much as removing the cause and restoring the natural equilibrium.

In case of abscess with an opening we have the simplest form to deal with, and it will usually yield to a simple treatment of aseptic washing out and root-filling. I have in common with many—with the majority, perhaps—been long of the opinion that it was necessary to create an inflammation inside of the sac in order to excite granulations; but since the general use of hydrogen peroxide, I believe that unless there is mechanical irritation from sharp points of the root or alveolar, the case will respond to thorough cleansing and closing of the foramen and root canal. If I have any reason to suspect such irritation as from long standing abscess and erosion of the end of root leading to enlargement of foramen, by measuring the distance to the end and using a small bit of rubber dam on the instrument, I know just how long the canal is, and urge a little softened percha to the end and slightly beyond, with the idea of removing or displacing the soft tissue or covering the sharp points causing the irritation. Another way of coming at it would be to use an instrument with a turn at a right angle, which would follow the canal to the apex, and by twisting wear down the wall end and then wipe out and apply the percha as before stated.

This is not always accomplished, of course, as in some canals it is impossible, but is one of the means sometimes employed.

There are cases of abscess with which we meet that are so stubborn that any means fail to restore to health, or ordinary means fail to keep restored, and they return to work periodically upon slight constitutional derangement, such as a cold or a bilious attack, wet feet or constipated condition of bowels ; and again, we sometimes find cases in which the utmost care will not avoid the tendency to run into periosteal trouble, and end in abscess or extracting. These we call the inflammatory diathesis, and of all the trying and exasperating things these are the worst sent to us to try the material of which we are composed, like overdrawn bank accounts and protested notes. They set us to thinking, and prove how helpless we are with violated Nature sometimes.

In such cases we can only assist Nature to throw off the incubus by saline aperients, cathartics, refrigerants, alteratives or constitutional treatment, along with counter-irritants and such local treatments as is thought advisable.

We do sometimes meet a case where there is fistula without an apical opening, or if there is one we are not able to find it, and no remedy can be forced through without drilling. In such a case we will find a broken Morey drill made sharp by stoning two sides to a cutting edge, or by using the regular Morey cutter very effective, using due care in choice of roots to be opened or such as are accessible to straight drills, and open them only at the apex. In dealing with roots of this kind I have been able, especially in inferior teeth, to force a passage by warming gutta-percha and pushing it into the chamber and canals with the tip of the forefinger or thumb, or an instrument quite as large as the cavity, thus making a strong piston force.

In still other cases where we have a curved root, and in consequence a liability to make a side issue or other good reasons for not piercing the apex, by using a syringe with hydrogen peroxide and getting as near the seat of the abscess as possible through the external opening, and a very mild pressure on the piston, we may be able to persuade the contents of the sac to imbibe sufficient of the antiseptic to effect a cure. There is still another way of getting at an abscess, which for one reason or another we are not inclined to apply other means of remedying, and this is through the process : by using cocaine or other local or general anæsthetic or by proceeding without these aids. The operation is not very painful, and is soon done with. In doing this a sharp fissure drill in the engine may be rapidly run over the end of the root, completely severing the connection between root and sac, followed by any good antiseptic and soothing remedy thought best. Cut, and in a few days all trace of abscess disappears.

In the foregoing remarks I have avoided as much as possible strict detail, out of compliment, no doubt, to the intelligence and experienced sagacity of my audience to follow out the ideas to their logical conclusions.

If I have sacrificed essential points in doing this, and failed to make clear my meaning, it will be a pleasure to go over the ground more fully and endeavor to be understood. Also, I am expecting to be very much criticised, and perhaps sat upon and pulled to pieces generally, but this won't hurt me in the least, as I recognize the fact that everyone of us has a way of our own, and no doubt a little better way than anyone else. You must also bear in mind that I am not teaching a class of premature or embryo dentists all about root-fillings and abscesses physiologically, pathologically or historically, but just speaking incidentally as it were to co-equals, co-workers, and very probably superiors, trusting that a general and lively give-and-take talk may end in mutually good results.

A Spring Medley.

By C. P. LENNOX, L.D.S., Toronto, Ont.

I am not aware that the pages of your JOURNAL are open to the products of moonstruck individuals, but as spring is approaching I thought to send you the following lines, believing that a little poetry early in the spring may be relished by your readers. (Believe me, the above assertion was not intended to cast reflection upon the tastes of your readers):

AN ANATOMICAL SPECIMEN.

A female doctor in an M.D. school,
 Teacher of anatomical mystery,
 Taught to the students this subject by rule,
 With microscope, scalpel and bistoury.

She procured, one day, a specimen rare,
 And under the microscope she placed it;
 Adjusted the glass and focussed it there,
 Until perfect in outline she traced it.

She caused the girls to gather around,
 And to view the remarkable object;
 Then asked what it was in language profound,
 To test their knowledge upon the subject.

They looked and wondered what the thing could be,
 And they thought of, and debated the question;
 Not one of all of them her way could see
 To offer a plausible suggestion.

Some thought it looked like a dissected flea,
 Perhaps, with all of its limbs lopped off;
 Or a small red fly, they thought it might be,
 With legs, wings and its head chopped off.

The thing was so shrivelled and very small,
 Others thought it might be a bacillus,
 Or one of those things which the doctors call
 Bacteria of disease, which fill us.

But they all gave it up as quite beyond
 Any power of their comprehension,
 And dropped the subject, although they were fond
 Of a bit of womanly contention.

There happened to pass a wrinkled old dame,
 An old maiden of seventy was she ;
 She looked in the glass, when near it she came,
 To see if she knew what the thing might be.

She laughed to herself, this wily old maid,
 Turning away from the glass to depart ;
 "You must study it well, dear girls," she said,
 "It is a selfish old bachelor's heart."

A young man came into my office a few days ago and said that I had given his sister "highsterics." I am very sorry. I was not aware that I had the disease, neither am I aware that it is contagious. Can you, or some of your readers, give me a remedy for it, because I don't want to spread any contagion, not even the itch, if I can avoid it.

So much for nonsense. Now, Mr. Editor, I want to give to your readers a formula for local anæsthetics, which I find very effectual in operation about the mouth, for which such things are used :

Oil of cassia.	
Carbolic acid.....	āā ℥iii.
Pure alcohol.....	℥i.

The above to be mixed before adding the other ingredients in order to cut the oil of cassia.

Then add—

Pond's extract.....	℥iv.
Pyrozone, 3% solution.....	℥iii.

The pyrozone must be fresh, so as to avoid any deterioration which might take place in it if allowed to stand open. It is better to make a quantity, because it seems to work better when a month old.

For extraction inject well around the roots of the teeth. Wait for a minute ; then extract. If you wish to get rid of a pulp, for crowning or immediate filling, have a short needle ; place upon it a piece of soft rubber, to act as a compress, leaving only the point exposed ; place the point in the opening over the pulp, and inject the solution into it. You can take the pulp out without the least pain.

Legislation.

Assembly Bill No. 21, Province of British Columbia.

An Act to amend and consolidate the "Act to Regulate the Practice of Dentistry in the Province of British Columbia."

[Passed Third Reading, 11th February, 1895.]

WHEREAS the profession of dentistry is extensively practised in Europe, the United States and the Dominion of Canada; and whereas the said profession of dentistry is protected by law in Europe, the greater portion of the United States, and in parts of Canada; and whereas it is expedient for the further protection of the public that there should by enactment be established a certain standard of qualification required of each practitioner of the said profession or calling, and that certain privileges and protection should be afforded to such practitioners:

Therefore, Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

1. This Act may be cited as the "Dentistry Consolidation Act, 1895."

2. It shall be unlawful for any person to practise, or attempt to practise, the profession of dentistry or dental surgery in the Province of British Columbia who is not a member of any College of Dentistry of any of the Provinces of the Dominion of Canada having authority to grant certificates of license to practise dentistry; or who is not a member of any College or School of Dentistry having like powers; and who does not produce sufficient evidence of such membership, and testimonials of good character; and who does not pass a satisfactory examination before the Board of Examiners duly authorized by this Act, and pay the required fees: Provided that nothing in this Act shall be so construed as to prevent physicians and surgeons and others from extracting teeth, but no person extracting teeth under the powers conferred by this section, excepting properly qualified dentists, physicians or surgeons, shall collect payment for such extracting of teeth.

3. A Board of Examiners, consisting of five practising dentists, residents of this Province, is hereby created, who shall issue certificates to persons in the practice of dentistry or dental surgery in this Province, and whose duty it shall be to carry out the purposes and enforce the provisions of this Act.

4. The members of the said Board of Examiners shall be appointed by the Lieut.-Governor in Council, who shall select

them from ten candidates, members of the British Columbia Dental Association, the said ten candidates' names to be submitted by the said British Columbia Dental Association. The term for which the members of said Board shall hold their offices shall be five years, except that the members of the Board first to be appointed under this Act shall hold their offices for the terms of one, two, three, four and five years respectively, and until their successors have been duly appointed. In case of any vacancy occurring in such Board, such vacancy shall be filled by the Lieut.-Governor in Council from twice the number of names of members of the British Columbia Dental Association submitted to him.

5. The said Board of Examiners shall keep a record in which shall be registered the names and residences or places of business of all persons authorized under this Act to practise dentistry in this Province. The said Board shall elect from its members a President, Secretary and Treasurer, and shall meet at least once a year, or quarterly if required. A majority of the members of the said Board shall constitute a quorum.

6. Every person desirous of being examined by the said Board touching his qualifications for the practice of the said profession of dentistry shall, at least one month before the sitting of the said Board, pay into the hands of the Secretary the required fees, together with satisfactory evidence of the qualification and requirements of Section 2 of this Act.

7. To provide for the proper enforcement of this Act the said Board of Examiners shall be entitled to the following fees, to wit : For each certificate issued to persons engaged in the practice of dentistry in this Province at the time of the passage of this Act, the sum of ten dollars ; for each certificate issued to persons not engaged in the practice of dentistry at the time of the passage of this Act, the sum of thirty dollars.

8. There shall be allowed and paid to each of the members of the said Board of Examiners such fees for attendance not exceeding ten dollars per day, and such reasonable travelling expenses, as the said Board shall allow from time to time ; said expenses shall be paid out of the fees and penalties received by the said Board under the provisions of this Act.

9. All moneys shall be held by the Treasurer of said Board as a special fund for meeting the expenses of said Board, he giving such bonds as security as the Board may from time to time direct.

10. The said Board at its first meeting, and from time to time thereafter, shall make such rules, regulations and by-laws not inconsistent with the provisions of this Act as may be necessary for the proper and better guidance of the said Board, which rules, regulations and by-laws shall first be published for one month in the British Columbia Gazette, and in one or more newspapers cir-

culating in the Province. Any or all of which rules, regulations or by-laws shall be liable to be cancelled and annulled by an Order of the Lieut.-Governor in Council.

11. The Secretary of the said Board shall, on or before the fifteenth day of January in each and every year, enclose to the Provincial Secretary an annual report of its proceedings, together with an account of all moneys received and disbursed by said Board of Examiners; also a list of the names of all persons to whom certificates have been granted, and the qualifications therefor, and such list shall be published in the Gazette.

12. In case a charge is made against any licentiate of unprofessional conduct, or other misconduct provided for by the by-laws to be passed under the provisions of this Act, the Board of Examiners shall have power to hear and determine the same, and for this purpose to summon witnesses before them and administer an oath or affirmation to such witnesses, and if any licentiate shall be found guilty of the charge preferred against him he shall forfeit his certificate and title, and the same shall be cancelled, subject to appeal to a Judge of the Supreme Court if brought within ten days; such forfeiture, however, may be annulled and the said license and all rights and privileges thereunder fully renewed and restored by said Board in such manner and upon such conditions and terms as the said Board shall think fit: Provided, however, that nothing in this Act contained shall empower the said Board to deal with any criminal or other offence provided for by law.

13. If any person after the period of three months after the passage of this Act, not holding a valid certificate, practises the said profession or calling of dentistry, or dental surgery, or wilfully and falsely pretends to hold a certificate under this Act; or takes or uses any name, addition or description implying that he is duly authorized to practise the profession or calling of dentistry, or dental surgery, he shall, upon a summary conviction thereof before any Justice of the Peace, for any and every such offence, pay a penalty not exceeding one hundred dollars or less than twenty-five dollars, to be recovered on summary conviction, and the half of any such penalty shall be paid to the Board of Examiners; and it is further provided that no person who is not qualified under the provisions of this Act shall recover in any court of law for any work done or materials used by him in the ordinary work of a dentist.

14. The said Board shall also have the power and authority to fix and determine from time to time a curriculum of studies to be pursued by students, and to fix and determine the period for which every student shall be articulated and employed under some duly licensed practitioner, said term not to exceed three years,

and the examination necessary to be passed before the Board, and the fees to be paid into the hands of the Secretary of said Board, before receiving a certificate of license to practise the profession of dentistry.

15. All notices required by this Act to be published in the Gazette, and all expenses to be incurred under this Act shall be at the cost of the Board, to be paid out of the funds mentioned in Section 9; in case of deficiency, to be levied by assessment against the members of the profession.

16. The "Act to regulate the Practice of Dentistry," Chap. 34, Consolidated Statutes, 1888, is hereby repealed.

[We are indebted for the copy of the new B. C. Act to Dr. T. J. Jones, of Victoria. We should like our confreres in other parts of the Dominion to take a leaf from Dr. Jones' book and keep us posted on dental legislation.—E.D. D. D. J.]

Proceedings of Dental Societies.

Toronto Dental Society.

The following meetings will be held at the Y. M. C. A., Yonge Street :

March 11—"Attitude of the Dentist to his Patient." By R. G. McLaughlin. Discussion opened by R. Haslitt.

April 8—"Dental Progress." By N. Pearson. Discussion opened by C. J. Rogers.

May 13—"Elements of Success in a Dental Practice." By H. E. Eaton. Discussion opened by H. T. Wood.

June 10—"Dental Technique." By W. Willmott. Discussion opened by W. M. Wunder.

Dental Association, Province of Quebec—Board of Examiners.

The next meeting for primary and final examinations will take place at the rooms of the Dental College of the Province of Quebec in Montreal on Wednesday, the 3rd of April, at nine o'clock.

Correspondence.

To the Editor of the DOMINION DENTAL JOURNAL:

SIR,—May I ask, through the medium of your JOURNAL, for some reasons based on facts, as well as theory, why we should not extract teeth that are badly ulcerated? I mean during the time the mouth round about the offending member is in an inflamed and badly swollen condition, with pus either discharging or in that state some days prior to the discharge, when the presence of the ulcerated tooth or fang is giving exceeding great and severe pain, especially to the touch of the invalid's tongue. I know of many dentists, as well as medical men, who send their patients away, refusing to perform the act that seems to be the most natural, and certainly the one that would give the speediest and most gratifying results to the patient as far as the alleviation of present suffering is concerned, stating as their reason for so doing that the extracting of the root, or tooth, while in that state, would be almost sure to produce blood-poisoning. Now, is it a fact that such is the case, or are not such notions largely built upon theory, and does not the poisoning result, when it does result at all, altogether from infected instruments, or from a lack of a thorough cleansing of the diseased state of the socket after the extraction? In fact, is there not really far more danger in neglecting to remove the exciting cause than there is in its removal and after-treatment? I want to say that I have been in practice over twenty years, and I am safe in saying that during that time I have extracted hundreds of teeth in a putrescent state, and in all stages of that state, from the time the sac begins to form until the pus copiously discharges, and after, and I have never yet seen the first indication of the slightest trouble.

The reason I now ask this question is, because only yesterday I had a lady call on me who was suffering from a badly ulcerated root, and had been suffering, as she put it, "dreadfully for over a week, and could not stand it any longer." She had been to her medical adviser to have the root removed, but he refused to remove it, and frightened her nearly out of her senses by telling her that if she had it out it would be almost sure to produce blood-poisoning, which would likely result fatally. Well, I advised her to the contrary, removed the fang, syringed and disinfected the socket, and bade her report on the morrow, which she did, and a nicer, cleaner, healthier state of affairs I could not have hoped for had it only been the smallest speck of the healthiest root imaginable that I extracted, instead of the diseased fang that it was, and that buried five-eighths of an inch down in the lower jaw.

Yours truly,

PRACTITIONER.

The Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

4. Q.—What is the best treatment for perforation of side of root? (1) When first made? (2) When it continually discharges bloody matter into root canal?

(a) 1. I should say the best treatment in such a case is the extraction of the tooth. Sometimes, however, this is a serious matter, and every possible effort must be made to save such a tooth. In answering such a question, however, for publication, I would urge the abandonment of the use of drills in pulp canals, thus avoiding the injury referred to to a very great extent. If a bit of styptic cotton wound upon a small instrument be carried to the injured periosteum, hæmorrhage will cease in a few moments; then, after the parts are as thoroughly cleansed as practicable, a piece of gutta-percha is warmed and carried to the spot, taking care not to force it through the drill-hole into the wound. Upon this cement—oxyphosphate—may be applied; the gum over it should then be painted with equal parts of concentrated Tr. Aconite root and Tr. Iodine, and wait developments. No trouble may follow, but, of course, little hope can be entertained that a traumatically injured periosteum, with the elements of constant irritation always present, will behave itself like a normal or uninjured membrane. Gutta-percha is the more kindly tolerated by the injured parts of any material we have at hand. 2. Should suppuration ensue, and the alveolus become perforated, the rough surface on the root may then be reached and the gutta-percha and root made as smooth as possible, when the parts may again heal over it. My motto has always been, "Prevent rather than cure disease." Consequently, I avoid using drills in pulp canals altogether, except for setting pivot teeth.

FRANK ABBOTT, New York.

(b) Perforation of side of root means wounding of the pericementum. 1. Syringe with peroxide of hydrogen solution, dry; pack with Dr. Levers' "Quickcure," the consistency of which retains the dressing. 2. Repeat this dressing. It can be used freely in wounds of any character. If possible, leave a bit of asbestos paper over the perforation.
B., Montreal.

(c) 1. Use the gutta-percha base plate or white sheet gutta-percha made warm, and as small as possible to cover opening and lie over the sound dentine; dry the root, dip gutta-percha in oil

cajeput and apply. In a very short time you will be able to go on with contemplated operation. 2. Use pyrozone 25 per cent., and proceed as in the first part. N. P., Toronto.

(d) 1. Apply disinfectant, preferably oil of cloves or oil of cinnamon; these will also act as hemostatics. Then carefully fill the opening with gutta-percha. 2. The discharge of "bloody matter" probably indicates a septic condition in the tissue beyond the perforation. The indications are to thoroughly disinfect. Peroxide of hydrogen, followed by pure creasote, would be a good treatment. When the discharge ceases, treat as in case of fresh perforation.

J. B. WILLMOTT, Toronto.

(e) 1. Enlarge canal; saturate cotton with tannin and glycerine, and fill root; next day remove cotton, wash out canal with warm water and fill with gutta-percha. 2. When pus is present treat with pyrozone (H_2O_2) until suppuration ceases, and proceed as above.

GEO. F. HORSEY, Utica, N.Y.

5. Q.—Why do some cement fillings dissolve out under the gum while others remain perfect, even while balance of filling is worn out by friction?

(a) It must be chemical action or faulty insertion. Do we always know that moisture is excluded, and that the cement is as well packed there as at the visual surface? or do we apply a matrix and put same force on cement at that point, thus insuring—first, freedom from moisture; secondly, no chance of dam folding in to prevent absolute occupation or change of position while setting; and, thirdly, a thorough rubbing in and positive adaptation to every part, and a good polishing up at the end. I suspect, however, that chemical action is much more likely to be the cause, and have for some years used amalgam where possible under the gum line, with very satisfactory results. I renew the cement as required in the crown portion, where constant use has caused it to disappear.

N. P., Toronto.

(b) The acids from fermentation, the actual food and ferments, find an anatomical lodgment at the gingival margin.

B., Montreal.

(c) Cause obscure zinc cements uncertain. Probably due to abnormally acid secretion from the sub-mucous glands of the gum, which is very likely in a condition of irritation from the rough surface of the cement filling.

J. B. WILLMOTT, Toronto.

6. Q.—What is the best method of anchoring anterior end of bridge-supplying bicuspid? Six anterior teeth perfect?

(a) In my judgment, no anchorage is admissible in bridge work which does not include a band or cap on both abutments of the

bridge. No anchorage into a cavity can be relied on to endure for any length of time. The tooth so anchored into will move on pressure being applied, independently of the other abutment, and of necessity must either loosen the filling in the tooth or loosen the anchorage in the filling. In the case specified, cap or band first molar and cuspid, or, what is probably very much better, make no bridge for the case.

J. B. WILLMOTT, Toronto.

(b) I have very little faith in the open-face or three-quarter cap for anchoring a bridge. Would prefer, for stability, cutting off the cuspid and proceeding with the band and pin plan.

N. P., Toronto.

(c) Half cap cuspid with clasp-metal, cutting band on labial surface up to margin of gum, so as to have as little gold show as possible.

GEO. F. HORSEY, Utica, N.Y.

(d) Before mutilating any perfect tooth, consider first the demands upon the bridge; secondly, the strength of abutments necessary to sustain the life of the bridge, and thus sustain your reputation. I cannot see that it would ever be necessary to amputate a perfect tooth for such a bridge. Rather than do it, it would be better to immediately extirpate the pulp, which, if properly done, gives slight or no discoloration to tooth; and then utilize the pulp canal for a solid irido-platinum post, dovetailing it so when filled with gold and nicely finished makes a neat and strong abutment. It can also be inconspicuously done by burnishing an apron of pure gold or platinum over the palatine surface of cuspid, making small cavity to receive the head of a platinum pin taken from a tooth, attach to apron by flowing solder over full surface of apron. This makes a good attachment for lady if not too heavy work is placed upon bridge. If the patient is a man and cares little for the appearance of gold, the abutment is good and safe with a well-fitted shell crown or open face cuspid. It is a difficult place for a removable piece. Can see no advantage in this particular case, but where preference can be given it should be given towards adjustable pieces.

FRED. J. CAPON, Toronto.

The following are answers to questions 1, 2, 3, which were too late for publication in January number.—ED. Q. D.

1. Q.—(a) First, with composition, using a specially-prepared cup; or, secondly, with beeswax, removing thin portion, spreading creamy plaster over impression thus prepared, and reinserting.

D. V. BEACOCK, Brockville, Ont.

(b) After having selected a cup as near the shape of the alveolar ridge as is possible, take an impression with beeswax, not too soft, in order that pressure may be produced upon the soft parts in so doing. With a sharp knife or scraper remove a film of the wax;

remove a little more where the ridge is hardest, and trim away any surplus wax from about the impression. In order to arrest the flow of saliva, would direct the patient to thoroughly rinse the mouth with ice-water; then, having mixed your plaster, to which a little salt has been added to hasten setting, pour same into your wax impression, direct patient to raise the tongue, insert quickly, and instruct patient to move the tongue from side to side, as in so doing the muscles will be withdrawn from under the impression; at the same time, insert finger on either side of the impression so as to draw out the muscles of the cheeks. Upon removal, you will find that you have an impression as near perfection as is possible.

L. CLEMENTS, Kingston, Ont.

2. *Q.*—This may arise from several different causes, such as accidental contamination before the gold reaches the dentist, using pliers or other instruments that may have been soiled with foreign matter, fumes of volatile chemicals, from uncorking some bottle carelessly. It should never be forgotten that dental gold is a very delicate metal to handle and very susceptible to injury by contact with any foreign matter, such as particles of dust, the patient's breath, fumes from iodine, etc.

D. V. BEACOCK, Brockville, Ont.

3. *Q.*—Relieve all hard unyielding parts, and scrape all soft parts wherever found in the mouth.

D. V. BEACOCK, Brockville, Ont.

Questions for April.

7. *Q.*—A person comes to have a rubber plate refitted; it is very loose; has been worn ten, fifteen or twenty years; teeth all right; articulation all right. What will be the best to do in such a case?

8. *Q.*—What is the reason in some cases the bone wastes away in front upper jaw until it is as soft as the lips? Could a plate be made to remain steady in such a case?

9. *Q.*—Sir Benjamin Ward Richardson said, "Nitrous oxide only produces asphyxia, and that asphyxia is the first stage of death." Turnbull, Sanson and other authorities condemn it. What is the difference between anæsthesia and asphyxia?

10. *Q.*—Is nitrous oxide gas injurious to pregnant females?

We feel that the readers of the JOURNAL are entitled to an explanation of the non-appearance of the department in February issue. We can only say, that the matter was sent to the publishers, but did not appear. We have written twice, explicitly for an explanation, but as yet none has been received.—ED. Q. D.

Abstracts.

FUSIBLE METAL.—A mixture of lead 5, tin 3, and bismuth 8 parts, will melt at 92°C. Another formula is lead 2, tin 1, and bismuth 3 parts.—*Southern Dental Journal*.

If anyone is accustomed to the use of gutta-percha, he can seal cavities, in my opinion, just as rapidly with it as with cotton and sandarac, and the cavity will be more perfectly sealed and the dressing less offensive on removal.—*C. N. Johnston*.

In making crown and bridge work, whether of the Richmond style or otherwise, the porcelain fronts should never be put into the fire during the soldering process. They should be removed while soldering, and put on afterwards, either after the Alexander idea, with amalgam bradded on, or fastened with a small pinch of soft solder. Heating the teeth jeopardizes their strength very much.—*Southern Dental Journal*.

Use a magnifying glass to discover possible defects in the preparation of cavities and the finishing of fillings, also, at times, adaptation of gold to the walls or margins in the progress of fillings. It is impossible for the unassisted eye of any person to recognize the faulty conditions which may exist, and whoever accustoms himself to the use of a glass will learn to appreciate its value.—**DR. GARRETT NEWKIRK**, in *Items of Interest*.

Dr. Geo. Howe Winkler regards kreasotund as a specific for that pathological condition of the mucous glands of the mouth which results in the excretion of an acid corrosive fluid, which excoriates the epithelium and corrodes the teeth. It is also very useful when administered for a few weeks before excavating decay in very sensitive teeth. It may be prescribed in the form of powders, pellets or liquid, as the patient wishes.—*Dental Cosmos*.

"I believe I introduced lactic acid into the profession for pyorrhœa, and, as yet, I have found nothing to equal it. I use full-strength, chemically pure, which I introduce with a platinum-pointed syringe, flattened and bevelled. In introducing lactic acid, press the syringe-point to the bottom of the pocket, then raise it slightly before discharging. The acid is harmless to the soft tissues, but softens the tartar so that it may be more easily removed. If I suspect the operation is going to be painful, I use cocaine first. The point I tried to bring out before the American Medical Association and in the Congress was to commence on one tooth, and bend all endeavors upon that until all tartar was removed, then inject lactic acid and pass to another tooth."—**DR. W. J. YOUNGER**, in *Pacific Coast Dentist*.

A DOMESTIC REMEDY.—“If this was an upper tooth I could cure it myself,” said a patient for whom I was treating a lower molar the other day. “I cured my cousin's tooth and lots of others.” “What is your cure?” I asked. Said he, “I *red-hot*ted a one-pound weight and put on it about equal parts onion seed and lard, then covered it with a funnel and held his mouth over it, and *the maggots came out something awful*. You wouldn't believe the like could be in a man's head.”—*Geo. S. Martin*.

An engine cord may be made at a cost of three or four cents from a pair of ordinary round twilled corset laces. Cut one of the brass tags off, and by means of the tag on the other lace telescope one lace end over the other one or two inches. Take the other ends, and, after measuring, cut off one to the proper length and proceed as with the other ends. The tags may be passed out through the sides and cut off when inserted far enough. A few stitches through the telescoped ends will hold them secure.—*Geo. S. Martin*.

Before the First District Dental Society, State of New York, Dr. John A. Daly, of Washington, D.C., exhibited his gold lining for rubber plates. It consists of a pure gold foil, smooth on one side and crystalline on the other, of a thickness of No. 50 to 60. When the case is ready for packing, the model is varnished with sandarac, then a coat of Damar varnish is placed over the sandarac, and after waiting for five minutes for the varnish to partially dry, the model is entirely covered with the gold cut into small pieces, allowing the edges to overlap. The rubber is then carefully packed on the lining, and the flask brought carefully together so as not to disturb the gold. The case when vulcanized has a smooth gold surface on the inside. Dr. Daly claims that the gold will last as long as the rubber plate, and that it cannot be separated therefrom.—*Cosmos*.

DEVITALIZING PULPS.—The method of applying the paste has much to do with the result. There must be access and exposure. I always see the pulp either direct or by reflection. Then I thoroughly dry the cavity and apply directly on the pulp two or three small crystals of hydrochlorate of cocaine, waiting for exudation from the pulp to dissolve the crystals; then put the arsenic in direct contact with the pulp, a little pressure not giving pain because of its anæsthetized condition. Cover the paste lightly, filling the cavity with dry cotton and sandarac varnish, letting the paste remain ten hours. If those practitioners who insist on two or four days' application would try the ten-hour plan on a direct exposure, they would have less peridental inflammation. The reason for desiring a good exposure is because, when there is inflammation of the pulp, there is swelling, which gives rise to the intense pain following the ordinary application of arsenic. Remove one of these walls and you mitigate the pain.—*Georgia Practitioner*.

Be careful of your promises. Young dentists, especially, are liable to be sanguine, and many patients expect too much. By the way some talk, we would suppose a tooth, after being filled, ought to be better and last longer than one that has never been decayed; and by the way some dentists boast of their work, patients are led to believe they have improved on nature. Both are unreasonable, and neither will be realized. In your warrant, be modest and moderate. At first you may be misunderstood, and some of your patients may be inclined to go to one who will give a better guarantee; but if your work proves a little better than your guarantee, your reputation will be better than your promises, and this will establish you as an honorable man and a conscientious workman.—*Items of Interest.*

Dr. Jas. Truman, of Philadelphia, read an interesting paper on "The Relative Penetrating Power of Coagulants" before the Academy of Stomatology. By a series of elaborate experiments, using the principal coagulants and essential oils on a preparation of albumen in glycerin in sealed tubes of less than a millimeter in diameter, he has arrived at the following conclusions:

1. That coagulants do not prevent by their own action the diffusion throughout the entire tube.

2. That the penetrating power of such agents as creasote, carbolic acid and zinc chloride, those most frequently used, varies materially. That creasote is a very poor coagulant when compared with carbolic acid, and the latter, for this purpose, is not to be compared with zinc chloride or silver nitrate.

3. That in proportion to the coagulating power of the agent will be its penetrating force, independent of gravitation. These experiments have more than ever confirmed Dr. Truman in his opinion of six years ago, "that coagulants placed in the central canal will permeate the tubuli and coagulate the contents."—

Dental Cosmos.

Progress should be the watchword of every man who has the good of the profession at heart. Every man who has made a success of any specialty deserves at least open recognition and the thanks of the profession entire. That some men should meet with a greater degree of success in any particular branch of dentistry is not strange; it is usually found on investigation that they have excelled by dint of patience, perseverance and hard work. Every progressive man's theory is entitled to respect, and he who gives his time and talent freely to the profession is entitled to much credit. Jealousy is the product of little minds. "He only advances in life whose heart is getting softer, whose blood warmer, whose brain quicker." The weakest among us may have a gift which is peculiar to himself, and which, freely given, will benefit the profession. Such help as we can give each other in

this world is a duty we owe each other, and the man who perceives a capacity or superiority in another and refuses to recognize it, is not only the withholder of a kindness, but the committer of an injury. Let us not forget, in the march of progress, that every revolution was first a thought in one man's mind, every reform was once a private opinion. Dental societies and congresses must exist for the education and advancement of all, and not for personal notoriety. It certainly behooves every progressive dentist to identify himself with some dental society, to aid and abet, not only by his presence, but in an exchange of ideas and methods. It is by contact and comparison we advance. We receive the reward of duty done as well as mutual benefit. We cannot stand still; we either advance or recede. Let us not become old men before we discover how rich we are in thought and deed. We all have our place on the ladder; it rests with ourselves whether we go up or down. Progress is our safeguard, for when, in our own opinion, we become oracles, and ignore the opinions of our equals, we shall have passed that period of usefulness, and become an enemy to our chosen profession rather than a benefactor.—DR F. H. METCALF, in *Pacific Coast Dentist*.

THE PREPARATIONS OF PYROZONE.—“Since the preparations of pyrozone are now being so generally used, I would like to suggest a few thoughts in regard to them. First, as to the care that should be exercised in opening a tube of either the 5 or 25 per cent. to avoid explosion: Place the tube on a block of ice for a few minutes and hold it in a wet napkin while grinding off the end. Second, to keep it from evaporating, after transferring to a glass-stoppered bottle, first coat the stopper with vaseline and insert, then melt paraffin and pour over it. This is the only way I have found whereby I can preserve it after once opening a tube. Now, in regard to using them. Of course, the soft tissues must be protected by the rubber dam, and the face and eyes well protected when the spray is used from a pyrozone atomizer. In using these agents for bleaching, care should be taken that the greater part of the root should be hermetically sealed, or else atoms of oxygen will pass through the apical foramen and cause considerable pain after the tooth has been filled. I always prefer to seal the root with the best quality of cement, and give sufficient time for it to harden, as where the rubber or gutta-percha stopping is used the ether will penetrate to some extent by softening and dissolving it; at any rate, trouble is very apt to occur if the cavity is immediately filled after using this kind of root-stopping. Your patient will sometimes return with the tooth quite sore and ‘quivering.’ Of course when used to evacuate pulp canal contents, it does not matter how far it may penetrate, as the loosely-held atoms of oxygen will exert their force at the point of least resistance, which,

of course, is in the direction of the cavity, and after pus has ceased to discharge, by simply spraying canals with 3 per cent. pyrozone, then drying thoroughly with absorbent cotton and hot air, the tooth may be immediately filled, though I think it safer to use a 50 per cent. solution of sodium peroxide, if you wish to practice immediate root-filling, or Dr. Schrier's preparation of sodium and potassium, both of which have proven entirely successful in my hands for nearly two years past. The pyrozone used with the atomizer will cleanse the chamber and canals, as well as tubuli of dentine, more quickly than anything I know of. Of course, judgment and care should be exercised in the use of either of the compounds mentioned, and no operation should be begun upon the teeth when they are used until the rubber dam has been first thoroughly adjusted. These few thoughts are offered in the hope that someone will be helped who has not had quite as long an experience with them as I have."—DR. J. N. CARR, in *Southern Dental Journal*.

Post-Card Dots.

21. Would it not be proper and instructive to publish the questions asked after the examinations are completed for the licenses to practise in all the Provinces?—P. B.

It would be. Most of the colleges do so. The *British Journal of Dental Science* has done so for many years. All the medical schools publish their questions of both the primary and final examinations, and issue them with the annual calendar.

22. Is not infirmity dental practice a great injustice to licentiates who do not share in the emoluments the professors receive?

A very old grievance. Can you suggest a remedy? How otherwise can students get clinical practice? The "emoluments" of the professors in Ontario do not compensate for loss of time and study and research. The "emoluments" in Quebec are absolutely *nil*.

23. Have we a Code of Ethics? If so, would you publish it? Next issue.

24. How many licentiates are there in Toronto and Montreal? In Toronto, 45; in Montreal, 24; with prospects of many more than both require.

25. Explain lowness of fees in country districts.

Ignorance of the public as to the functional value of the natural teeth, and a purely trade idea of the merits of prosthetic dentistry. Frequently, too, self-depreciation by the dentist. Sometimes, the unadulterated cheek and lying of quacks.

Editorial.

Dr. Stephen Globensky.

We need offer no apology for producing a much better portrait of Dr. S. Globensky, President of the Board of Examiners of the Province of Quebec, than that which appeared in Volume V., which was a particularly poor production.

The doctor was born in the village of St. Eustache in 1848, and in early life, after a course of classics, entered upon the study of dentistry in the office of Dr. Chas. F. F. Trestler; in 1870 obtained his diploma, and became a partner with Dr. Trestler; in 1886 was elected one of the members of the Board of Examiners; held the position of treasurer for three years. In 1892 he was elected President of the Board, and Professor of the French Department of Prosthetic Dentistry in the "Dental College of the Province of Quebec."

It has fallen to his lot to have had a large share of personal and official work and anxiety in contending for the rights of the profession before the courts and the Local Legislature; and it is well known that no man can do such work honestly without making enemies as well as friends. We must, however, do him the justice of saying that he has been actuated by a single desire to do his official duty. The profession in Quebec is much indebted, too, to his father-in-law, the Hon Mr. Tourville, whose experience in the Senate was invaluable.

Teaching Students.

Theoretical and clinical teaching is year by year demanding more devotion and research on the part of teachers, not only in the direct art of conveying instruction, but in separating the wheat from the chaff and the avoidance of bewilderment of the student with questions that are in the throes of controversy. Anyone familiar with the pathological theories presented as "facts," even ten years ago, must realize the embarrassment to the honest teacher who has to keep up with the advance in thought and investigation. The very text-books appointed for reference may in some important features convey theories of disease and treatment altogether erroneous, yet they are deliberately recommended while they may be as deliberately refuted. To clear away the mists that must inevitably surround them, to keep pace with the monthly changes that occur, involves an almost daily watchfulness that neither students nor

those who are not engaged in teaching appreciate at their full value. This may be emphasized perhaps with respect to instruction in dentistry more than in any other profession, and is, no doubt, one of the chief reasons why capable and conscientious men are not as eager to rush in where flippant and ill-prepared men may fearlessly attempt to soar.

It is a very trite remark, that the critics of books are generally men who have never written one. It may also be said that the critics of lecturers are men who never dared face the music of lecturing. A teacher who has to convey instruction to students who are faithful readers discovers that they expect the cream, and that they know the skim-milk of instruction from the genuine article. It is a greater gratification to the well-prepared teacher to have just such students under him than to have dunces. But naturally the strain week after week of supplying the condensed pabulum demanded, and at the same time attending to his own professional and domestic demands, would seem to suggest that the day may come when lecturers may be entirely relieved from the latter by such generous endowments as will enable them to give the most and the best of their time to research and to instruction. It is absolutely impossible that any teacher can do the best that is in him for students, unless he is quite able to ignore the superior claims which press upon him in the daily battle with what the Germans call "the science of bread and butter." Happily, in medical teaching, this question has, in connection with some departments, been solved by public benefactions, and medical students get the benefit. Unhappily, in connection with all departments of dental instruction, the solution is still left for the distant future. Nevertheless, teachers to-day unselfishly sacrifice personal profit and frequently personal health in unrewarded, and, we fear, unappreciated service to the profession and the public. We trust that the cloud will some day show a silver lining.

Moderation in Practice and Statement.

In the last issue of the *International Dental Journal* an excellent article appears by Dr. S. G. Perry, of New York, suggesting not only wise thoughts on the subject of accuracy of observation and expression, but of moderation in practice and in statement. The article is too long for our space or we should have placed it among our selections; but we shall briefly attempt to epitomize it. The doctor starts at once by attacking the want of exactitude in tabulating and reporting cases, a matter which has become so notorious, especially on this continent, that one almost hesitates accepting any statement until it is at least a year old. A survey of dental

journalism for the last twenty-five years exposes such an amount of reckless conclusion, based upon imperfect premises, that we are reduced to the necessity of doubting almost everything. Dr. Perry shows that the most opposite statements are made in certain lines of practice, and that "as both cannot be true, the natural conclusion is that the real truth is somewhere between the two extremes," and that "in trying to adjust the sliding scale we finally comprehend the fact that we are not dealing with the exact truth at all, but with individual opinions of it, even our own opinion."

Those who are familiar with the history of the old amalgam controversy may perhaps make that a starting-point, and recall from that period to the present date a mass of mistaken and mischievous assertions, dogmatically expressed, condemning lines of practice, use of materials, and with arrogant positiveness "proving" pathological results—all based upon the most unscientific and sometimes the most prejudiced reasoning, if such conclusions could be dignified as reasoning. It has always been a conviction, which we have trembled in presence of the Anglophobia critics to declare, that while in searching for truth we must all naturally blunder and stumble, yet on this continent there is a deal of hasty generalization and superficial research, and speculations in teaching and experiment, which are presented as infallible. There is something in our atmospheric conditions which impels mental effort to rush in where the cooler heads of Europe fear to tread. What Dr. Perry calls "the cold, careful, accurate language of science" is greatly lacking in our own scientific literature, and it is not uncommon to wade through "wild statements of opinions hysterically expressed" to find—nothing.

There is perhaps not one of us who does not need to apply the criticisms of Dr. Perry to our everyday practice. We are all more or less prone to believe that, in spite of the proverb, one swallow does make a summer in our particular vicinity. The young dentist especially who starts into practice with the conviction that what he does not know is not worth knowing, and who thinks that the knowledge of mere books and college clinics are superior to that of experience, will do well to heave this anchor now and then. He may not perform such fancy operations; he may insert fewer gold crowns; he may deal less in local anæsthetic nostrums; he may be less self-assertive, and find the mote in his own eye before he discovers it in that of his confrere. But he will be a better dentist in the long run, and by and by he may change his skin, so that his confreres will acknowledge that he has tried and has succeeded in becoming a gentleman.

Dr. Ievers has, by the advice of many of his friends, changed the name of his preparation to "Pheno-Banum."

Examinations.

Examinations, as a rule, are always formidable to the best prepared, because "a child can ask questions a wise man cannot answer." There is a pretty general conviction that dental examinations, at least, should have a more thoroughly practical character, and that a good deal of the time occupied in the oral and written work should be devoted to the clinical. However, there are necessarily two sides to the question, as anyone knows who has had extensive experience as an examiner. But there is one phase of the subject which has been brought to our minds by a rather curious coincidence.

We have received from three of our Provinces lists of questions asked dental students, and complaints that they are "mostly inapplicable and unfair, some of them entirely questions of controversy which no text-book has satisfactorily settled, and a number of them altogether out of the line of study or opportunities afforded by college training, and evidently picked out of the *fourth-year* examinations in medical colleges, or supplied by medical or surgical experts, and not possible to come from the examiners' own knowledge or experience." We give this extract just as it was sent to us.

It is natural that students should expect examinations to be confined to the course and limits of study prescribed by the Board before which they must appear. For instance, where the by-laws declare, when a student was indentured, that he must take *one* course of lectures at a medical university on certain medical subjects, it does not seem fair that the examination shall be at all in the direction of the second-year subjects, to which the student has never listened. In some of the Provinces the primary examinations are defined as "*Dental Anatomy, Dental Physiology, Dental Chemistry.*" Yet in none of the medical universities are these specifically taught, and whatever the unfortunate student learns of the purely dental aspect of these questions he has to gather from his own reading of text-books unknown to the medical universities. If a dental college succeeds in supplementing these medical lectures by a special dental course, this objection, of course, does not stand. But if it does not, it is an objection that should be fairly considered.

In some of the Provinces a large part of dental education is self-gotten; the students are self-taught, unless they go out of the Province to be instructed. The office and laboratory training is invaluable—if the student enters an office of a licentiate who is competent or willing to direct him in his studies. Many of our very best men possess no dental college qualification whatever, and those who do are the readiest to admit, that the indentureship system based upon that of England, and making obligatory certain primary courses in a medical university, had very good results.

But a college training is essential ; and yet it is but fair that examinations should be confined to the subjects taught in the schools, otherwise of what use are they practically in helping the student towards his license ? If dental examinations are to enter the realms of the most abstruse and abstract problems in medicine and surgery ; if a student is expected to " pass " on subjects which the law of the land prohibits him from handling ; if he is forced out of the ranks of practical dentistry because he does not know phosphorous necrosis from exanthematous necrosis, the microscopy of myxoma from that of carcinoma, and yet give proof that he is well up in theoretical and practical dentistry, an injustice is done. The by-laws distinctly state that the pathology, therapeutics and materia medica shall be "*dental*," and any examination outside of that is as illegal as it is unfair. Any L.D.S. not holding a medical and surgical degree who attempted to treat or operate upon cases not embraced within the recognized and legitimate functions of " dentistry " would expose himself to prosecution.

One of our correspondents, in a Province where there is no college, writes us that he was referred back in his final examination for a license to practice dentistry because he had failed to answer the following questions :

" What is the molecular weight of nitrate of potash ? "

" Describe ichthyosis linguæ. "

" How would *you* treat osteo-sarcoma of the lower jaw ? "

" Describe myeloid tumor of the body of inferior maxillary bone. "

We have been repeatedly asked to publish the questions at examinations, as is the custom in England and the United States, and we propose in future to do so. The object of examinations is not so much to discover what the candidate does not know, as to find out if he knows enough to be let loose upon the public as a dentist.

At the opening session of the Department on Therapeutics and Materia Medica of the World's Dental Congress, the chairman, Dr. Gorgas, took exception to the common fashion, among ethical members, of decrying the investigation of all remedies which come before the profession as advertised nostrums. " I do not agree," said he, " with those who oppose discussing in a dental congress the effects of the various drugs which have, within a comparatively brief period, been brought to the notice of the dental profession in the form of popular nostrums for obtunding the sensibility of the dental organs, and for which is claimed entire immunity to pain and absolute safety, giving as a reason that such investigation may prove an advertising method, or at least as such. On the other hand, I believe it is our duty to make ourselves acquainted with the source, medical properties, action and therapeutic uses of all agents which are capable of exciting curative or toxic effects, according to their combination, quantity applied, or method of application. "