

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Additional comments: /
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages/
Pages de couleur
 - Pages damaged/
Pages endommagées
 - Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
 - Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
 - Pages detached/
Pages détachées
 - Showthrough/
Transparence
 - Quality of print varies/
Qualité inégale de l'impression
 - Continuous pagination/
Pagination continue
 - Includes index(es) /
Comprend un (des) index
- Title on header taken from: /
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
 - Caption of issue/
Titre de départ de la livraison
 - Masthead/
Générique (périodiques) de la livraison

DOMINION DENTAL JOURNAL.

VOL. VI.

TORONTO, MARCH, 1894.

No. 3.

Original Communications.

Soliciting Patients.

By L. D. S., Toronto.

A suggestive article could be written on the solicitation of patients, and if we make claim to be a professional body, it is the duty of society officers to see that no man gains entrance who has resorted to trade methods. At the meeting of the American Dental Association in August of last year, resolutions were adopted refusing representation to societies that did not require its members to live up to the requirements of the Code of Ethics; and in 1891 a resolution was adopted to prohibit individuals who are violating the code from holding clinics or giving other exhibitions before the Association.

Now, it seems to me we are not careful and watchful enough in this matter, and it may explain one reason why a great many who are thoroughly ethical do not come to our meetings. I have seen some gatherings used by men who break the code, for the open purpose of advertising themselves, and before the members realized how they were being gulled. No matter how interesting these matters may be, we have no choice when they come to be measured by the code. The special interest does not make the breach any more pardonable.

But now let me turn the search-light upon others who flatter themselves that they are thoroughly ethical. Do we not see shrewd men who think it perfectly ethical to solicit the physician,

the clergyman, and others to send them patients on commission? I can point you to a few whose chief art lies in dropping mean criticisms about their superiors, and undermining the reputation of brother-practitioners by slighting remarks whenever they get the opportunity. A medical friend of mine told me that a very indifferent dentist in whose office he was giving ether, endeavored to secure his influence by derogatory remarks about his leading confreres, especially about one confrere. It appeared that he had never had any dental education outside of what he got in the laboratory and office of a very poor practitioner, and that his examination before the Board was "the worst of any candidate who had ever passed." The physician retorted as follows: "Dr. — has had and has kept my family practice for twenty years, and I am more satisfied with him every day. I know he always was and always is a diligent student in his profession. You will permit me to say, that my experience as a medical practitioner enables me to judge what a dentist knows of dentistry, and I don't think you've yet learned the A B C of your profession, in spite of the fact that you pull and fill and make teeth."

Unfortunately everybody will not speak so plainly, and many people easily swallow the falsehoods these men circulate to get patients. I know we are no worse than the physicians and the lawyers. All professions have mean and malicious men in their ranks, and the more ignorant they are, the meaner they are. We cannot be expected to puff up the merits of a confrere, or so to extol him that we will drive our own patients to him, but surely the world is big enough for us all, without resorting to dirty methods of obtaining a practice. And I think the meanest and most dangerous men in the ranks of any profession, are those who assume to be ethical, yet who are not the least bit superior in their methods of soliciting patients, to the distributors of pamphlets from door to door whom they condemn.

[We do not suppose an article like the above will have any more effect on the characters represented, than water on a duck's back. This journal has never had any mercy upon men who degrade the profession. But we have great cause for gratitude, that in most of our cities and towns there exists an undoubted fraternity, such as we find among respectable physicians and barristers. You cannot make a man of inborn manners and malice noble by making him a dentist. He may even enter the ministry, and there exhibit it either by prosylectizing among sister congregations, or by hypocrisy. There is a bright side to humanity. There may not be more saints than sinners, but for every sneak there are a hundred true men. Don't you think so?—ED. D.D.J.]

Devitalizing Pulp.

By W. B., Smith's Falls, Ont.

There is, perhaps, no operation that calls for treatment at the hands of the dental surgeon, and which is attended with so much unnecessary pain, as the devitalizing of pulps.

We believe that much of the pain which so many operators complain of, as resulting from the application of arsenious acid to a live pulp, is due to the wretched manner in which the agent is too frequently employed.

There are various reasons for this deplorable state of affairs, but the one that stands out in bold relief, high above all others is—carelessness.

Too often when we find an exposure, which it is necessary to devitalize, we neglect to thoroughly remove all the debris immediately overlying and surrounding the point of exposure, and thus at the very outset we make a mistake.

Then again, perhaps, the saliva has almost unchecked headway into the cavity, or the devitalizing agent is not applied directly to the pulp, but is placed almost anywhere so long as it is in the cavity.

And then the grand finale is realized when a pellet of absorbent cotton, saturated with a solution of sandarach, or some other combination of a similar nature, is inserted to seal the orifice.

And it generally succeeds in sealing up more than the cavity, for in about nine cases in every ten it gums over the point of exposure, and prevents the proper operation of the arsenic and a raging toothache is the immediate result.

This should not be.

There is no duty in life, no matter how simple or insignificant, but the proper performance calls for more or less care and the observance of certain laws, or facts. How much more necessary then is it to have a systematized method in dealing with that minute but complex combination of arteries, veins, and nerves we term the dental pulp?

To properly destroy a pulp, it is absolutely necessary that the agent be placed in immediate contact. All decayed and loose particles should be carefully removed and the cavity thoroughly flooded with warm water. If this is conscientiously performed, it ensures us one great essential, namely, that of a clean point to receive the application.

If possible, the rubber dam should be applied and the cavity dried as much as possible. The exposure should also be enlarged

as much as it can be without injuring the tissues. A portion of the paste should be directly applied and covered with a layer of dry cotton, or some other material, and seal with warm compound, wax, or gutta percha, care being taken not to exert pressure.

If a little more time was expended, and a little more trouble taken, we would not have so many patients returning with the story of how they suffered intense agony, for some more or less lengthened period, but the pain would, in nearly every case, be reduced to the minimum.

Proceedings of Dental Societies.

Do not forget meeting of Vermont State Dental Society at White River Junction, beginning Wednesday 21st inst.

Selections.

Dental Boards.

By PROF. J. FOSTER FLAGG.

There is an incentive to pass and graduate men who are utterly unfit. They come to us, they work with us, and they get around us in some way—I don't know how—and the result is that some young men who are utterly incompetent go out from our schools. Do we know it? They work hard; they are present at every lecture; they are in the seats with their eyes wide open and their mouths wide open, drinking it all in, poor as it is; we see them every day, and we get to know those boys, and we hope that when they come up for examination they will pass well. What do they do? They are required to make a set of artificial teeth, and they take an impression, which is a wretchedly poor impression; so they say to some fellow-student who is able to take a good impression, "Here, I am going down-stairs a minute; you just take this impression for me, and I will be right back." So the good man takes the impression. Then the poor man swages up a plate, and it is the poorest kind of work, and he gets another man to swage up the plate for him. He sets it in plaster, and where the single teeth are to go he sets them, but where a few teeth are to be ground up together he finds he can't grind them up, so he gets another

man to grind up the gum teeth for him. And that piece of work is finally put in by this fellow as his work. He could not do it to save his soul; but how is the teacher to know that? Do you suppose we are going to watch every student at his work? Then, if a student has to prepare a cavity, and don't know how, he gets somebody to do it for him. He can't put the gold in, so he gets someone else to do that; and perhaps he can't finish the filling, and he gets somebody else to finish it up for him. Finally, he brings it to my good friend here, or to me, and he is asked: "Did you do this work?" and he says, "Yes, sir," and he lays his hand on his heart. Then he comes up for examination, and we ask him questions. I would like to read to you, gentlemen, a list of some of the questions that I have asked the students who pass before me. If it doesn't take in the whole range, from A to Z, then I don't know anything about dentistry—that is, in my branch. I have no idea what they do in the other branches, but in my little branch of dentistry I examine students thoroughly, and I ask them questions that I doubt very much if many of my brother hornets could answer. We have forgotten the things we used to know in school, but we keep up with the procession pretty well in practice, and run dentistry decently well in our office. And so it goes on. This man comes up for examination, and his finger-nails are written all over with the letters that he understands, and he gets beside some fellow that he knows is well posted, and he nudges him when a question is asked, and so, finally, he gets 41. He wants 42. That fellow, with all his cheating and defrauding, gets 41. And then I say, "Well, gentlemen, I voted 5 for that fellow; I think I can go one more. I will give him 6." Would not any one of you do that? I ask you; are you such hard-hearted cusses that you would not do that—particularly for your sons? Of course, you will do it. You say, "He has worked hard, he is a reasonably good fellow, a thundering sight better than I was when I started in practice. I did not know one-tenth part as much when I started, so I can afford to give him one more." Thus he gets 42, and he passes. And he goes out and he says, "I guess I got about 59 out of them 60 votes."

Now, when my friend Dr. Osmun said, in speaking of the gentleman who failed to pass the Examining Board, that he came from a reputable college, where they taught those things *in extenso*, I at once assumed that it must be the Philadelphia College, because I would like to know where they teach things any more *in extenso* than they are taught in that college. If the students who go out from that college knew everything that is taught in it, they might rattle most of you old men.

There should be no controversy between our Examining Boards and the schools. If the students cheat us into believing they are

fit to pass, they cheat themselves a hundred times more. What is the incentive? It is simply that, as a result of possessing our diploma, they are enabled in many States to practise. If they could not practise under that diploma—if it only stated that these gentlemen have been sufficiently prepared to come before your Examining Boards and take your examination, that we have examined them and think they are capable of passing your examination easily—if these men, having passed our examination, could not practise till they had passed your Examining Boards, don't you suppose they would embrace the opportunities to learn what we give them? Don't you suppose they would learn how to prepare cavities, and take impressions, and swage plates, and grind teeth? Of course they would, because their right to practise would depend on their ability to demonstrate their knowledge of these things before you.—*Items of Interest.*

Anæsthetics, and the Physiology of the Heart.

At the regular meeting of the Odontological Society of Great Britain, last December, a very concise and scientific paper was read by John W. Pickering, D.Sc. (Lond.), on the "Physiology of the Heart in relation to Anæsthetics," treating the subject from an experimental standpoint. The author showed that the following are some of the possible modes of action on the heart :

(1) The anæsthetic acts on the cardiac muscle itself, and may directly paralyze its contractile power.

(2) That the paralysis of the heart when present, is due to the action of the anæsthetic of the intrinsic cardiac nervous mechanism.

(3) That chloroform syncope is due to a reflex cardiac inhibition caused by irritation of the nerve ending of the vagi in the lungs.

(4) That chloroform primarily paralyzes the respiratory centre in the medulla oblongata, and that the consequent asphyxial condition of the blood secondarily paralyzes the heart.

(5) That cardiac dilation, when present, is due to pulmonary obstruction, and that chloroform has no specific action on the heart.

This last view, however, has been rendered improbable by recent experiments, which have shown that chloroform will produce dilatation of *both sides* of the heart.

Dr. Pickering experimented on the hearts of embryos previous to the development of a functional nervous mechanism—the chick embryo between the fiftieth and eightieth hour of incubation presenting an accessible form of heart or nervous system. Though

the embryonic circulation is then very active, there is no complication due to a change of blood-pressure; also the factor of asphyxia is eliminated, except when purposely introduced, by placing the embryo in an atmosphere of carbonic acid. The experiments were made on hearts *in situ*, and under conditions such that their rhythms were maintained for many hours unchanged, provided that no chemical or physical stimuli were applied to them. Chloroform injected under the blastoderm of the embryo, rapidly reduced its cardiac rhythm, and produced an exaggerated diastole. Ether acted as a powerful stimulant to the embryonic heart. These experiments show that chloroform has a depressor and ether an augmentor action—a conclusion at variance with the view of Claude Bernard, reiterated by the Hyderabad Commission. Nitrous oxide and air has but little depressant effect on the embryonic heart; pure nitrous oxide stops the embryonic heart in diastole. Dr. Pickering showed that there is apparently less danger of cardiac stoppage with the use of oxygen and chloroform, than with chloroform alone.

As to the vexed question as to whether nitrous oxide forms a compound with any of the constituents of the blood, or whether its action is owing to the formation of reduced hæmoglobin and consequent deprivation of the tissues of oxygen, Dr. Dudley Buxton urged the probable formation of compound of nitrous oxide with hæmoglobin, or with some globulin of the plasma. Recent researches lend much probability to these views. The question, however, is left *sub judice*.

Is it possible pharmacologically to antagonize the depressant action of anæsthetics on the heart?

An application of a 1 per cent. solution of ammonium hydrate directly to the ventricle of a frog's heart, restores it almost to its original power. This is proved in experiments on the embryonic heart.

Dr. Wood, of Philadelphia, failed to get any restoration of rhythm by hypodermic injection of atropine, amyl nitrate, or caffeine, while alcohol increased the cardiac depression. Ammonia had slightly beneficial effects, and digitalis, by raising the blood pressure, often averted death. Strychnine, in doses of .00002 grain, increases both the force and frequency of the embryonic heart rhythm. Large doses are depressant. Chloroformed hearts will, if not too strongly poisoned, respond to electrical stimuli. The direct application of heat will often restore a chloroformed heart when chemical and electrical stimuli fail. Dr. Pickering closed by advising the trial of external heat in form of wet rags over the heart.

Dental Doctors.

During the last year several instances in which persons on the Dentists' Register assumed the title of "Dr." were brought before the Council of the Medical Defence Union. It seems to have been considered as an infringement of the Medical Act, and some of the dentists were written to by the Secretaries of the Union, and cautioned.

This action, says the Annual Report, resulted in the use of the title being discontinued in many instances; but in one case, where the offence was persisted in, the dentist was reported to the General Medical Council. That body, however, appears to have taken little notice of the matter, and we learn that the Defence Union intends to have the whole subject brought up again at a future session.

It is said that in many cases there is a clear history of medical, or rather surgical, practice being carried on by the dentist in addition to his legitimate occupation. This would seem to raise the question as to the proper limits of dental surgery, a point we hope to touch upon when a suitable occasion offers.—*British Journal of Dental Science*, February, '94.

Dentists as Readers.

It has been a constant source of wonder to journalists, who are in position to observe the fact more than others, that dentists care so little for the literature of their profession. It is a lamentable fact that not one dentist in ten is a regular paid-up subscriber to any dental periodical.

Their entire course of reading during the year consists of a few sample copies which drop into their hands from a gratuitous circulation. How any man can be content with this meagre amount of disconnected information concerning the development and progress of his profession, is beyond conjecture.

Five dollars a year, judiciously expended in subscriptions to dental periodicals, would give any man a course of systematic reading that would not only be wonderfully beneficial by keeping his mind refreshed, but would also keep him posted as to the changes, progress and improvements daily occurring.

Can a man keep posted on the political situation of the day by reading a daily paper once a week? It is just as impossible to keep posted in a profession by reading an occasional sample copy.

Then every dentist needs books of reference. There are times when it would be a pleasure to look back and obtain *data* on some

important event that happened in the distant past beyond the stretch of memory. To provide for this, these volumes could be bound year by year, at a small expense, and the result would be, in a few years, a valuable library would be collected without any appreciable cost.

Every professional man who receives money for his services, and does not keep posted on the improvements of his profession, is taking money not justly due him. If you expect to give full value in service, you owe it to your clientele to keep read and fully posted.
—*Editorial in Southern Dental Journal and Luminary.*

A New Degree.

At a recent meeting of the Regents of the University of Michigan, at the suggestion of the Faculty of the Dental Department, the degree of Doctor of Dental Science was established, to be conferred upon those who, after completing the regular three years' course in a satisfactory manner and graduating, receiving the degree of Doctor of Dental Surgery, take another year's work, which will embrace advance work and original work as well, on certain prescribed lines.

It will be required in order to do this, that the applicant shall have made well-nigh perfect work in his regular course.

The course indicated for this degree in the scheme presented is work in *materia medica*, embracing laboratory work in organic chemistry, laboratory work, physiology, original work on these lines, and with special reference to some dental remedy; also, in pathology, embracing embryology and histology, bacteriology, laboratory course and original research on dental diseases.

This course would add very greatly to the equipment of the dental practitioner; it would give him attainments and ability much in advance of the general graduate in dental surgery.

Those who have given attention to the ordinary practitioners of dentistry as they go out from the usual course of instruction, cannot help being impressed with the great want that is so frequently experienced by the beginner when he is confronted by many of the more severe and obscure cases of diseases of the teeth and mouth.

The object in establishing this course is, if possible, to increase the ability of the beginner in dental practice. That something more is required in this respect than is obtained, not only in dental but in medical colleges as well, in the ordinary course is fully demonstrated by the establishment of Post-Graduate Departments, especially in medicine in nearly all our larger cities, and there seems to be a call for such schools in dentistry.

The efforts as yet, however, have been quite circumscribed, having reference only to some particular line of instruction, as, for example, Prosthetic Dentistry, or the more practical departments of work.

Lubricate Your Disks and Strips.

We see so many dentists still using sandpaper disks and strips in finishing fillings without vaseline or oil to lubricate them, that we feel like once more calling attention to this matter. It is a censurable species of inhumanity to run a disk dry on a gold filling, or to see-saw a strip back and forth between teeth without using a lubricant. A disk or strip will not heat up so rapidly if covered with vaseline, and contrary to prevalent opinion, the cutting properties will be improved. Quite often the question is asked by those who never use a lubricant: "But will not the vaseline or oil prevent the sandpaper from cutting?" A careful test of the matter will prove to these men that their impressions are wrong. If there were no other recommendations for the use of lubricants than the one of increased cutting power, this would be a sufficient inducement to always employ them. When disks are used with the rubber dam in place, it is extremely difficult to prevent a dry disk from catching up the dam in its revolutions and tearing it, but a disk well lubricated will play over the dam with little danger of a mishap. Another recommendation lies in the fact that when well smeared with vaseline, a disk becomes flexible and can be pressed into depressions and be made to cut at any desired point by guiding it with an instrument. This is well-nigh impossible when a dry disk is used.

This latter consideration is very important wherever a disk is employed between teeth for finishing a filling. If a proper contour is to be left to the filling, it is necessary that the disk shall cut only at the cervical portion of the filling and not at the contact point. A flexible disk may be pressed against the neck of the tooth if desired and all the cutting confined to that region, but a dry disk will almost invariably cut away the contact point and make a flat filling. The variety of curves to be given a flexible disk in cutting is limited only by the dexterity of the operator. Another argument in favor of lubricating the disk or strip is one of economy. In this condition it will hold the fine particles of gold on its surface, and the dentist who preserves his old disks and strips for a time and then turns them over to a refiner for melting, will be surprised at the result.—C. N. JOHNSON, in *Dental Review*.

A Few Things to be Remembered.

By L. P. HASKELL.

In ninety-nine per cent. of mouths the centre of the palate is hard and unyielding, in fact the only portion of the upper jaw which does not change from absorption or yield to pressure. Unless provision is made for it, the plate will, sooner or later, rock. This should be remedied by a "relief" in metal plates, of a thin film of wax on the model, extending well up on the anterior portion to near the margin of the process, and to within a quarter of an inch of the rear of plate. In a rubber plate the relief can be made by burring or scraping the plate.

There are more failures in artificial dentures from *faulty articulation* than from any other cause. To guard against this, in adjusting a denture in the mouth, see to it that none of the six anterior teeth touch,—in fact leave a margin of space. This will prevent the tilting of the plate from the rear. Be sure the bicuspid and first molars on both sides meet uniformly; have no pressure on the second molar, and especially if the lower occluding molar leans forward, as it would crowd the denture forward.

In arranging the *lower* teeth, commence with the second bicuspid so as to ensure a perfect interlocking of the cusps. The fronts must be accommodated to the space allotted to them by crowding or overlapping, if needed.

In ordering teeth from the dealer, see that bicuspid and molars are provided that have a good length of porcelain *above* the pins, so that if necessary to grind, in articulating, the porcelain will not be ground away. The teeth will also present a more natural appearance. Insist upon this from your dealer.

If you desire to restore the expression of the mouth which has been sacrificed by the extraction of the cuspid teeth, remember this invariable rule, viz.: the plate can and should be worn higher over these teeth than elsewhere, and the artificial gum made fuller.

Leave the necks of the cuspids slightly fuller than the other teeth.

Finish the rubber with a festoon around the necks of the teeth.

In selecting teeth for metal plate and crown work, if you desire *strength*, use the perpendicular rather than the cross-pins, and they are less liable to crack in soldering, and do not let your dealer give you anything else.

In polishing metal work, use *oil* with your pumice both on the felt and the brush. To reach all the depressions and interstices, drive a pine stick into the lathe chuck made for it and with sharp knife turn it to a blunt point.—*Ohio Dental Journal*.

Selecting and Keeping Dental Medicines.

While there may be many other things to modify the action of drugs, or the result of their application, we believe that many times negative results come through the use of inferior medicaments.

In the first place there are many impure drugs in the market, especially in the smaller towns; drugs that are either adulterated or have undergone a change from exposure or long keeping.

On the other hand, we may obtain pure drugs, but allow them to deteriorate through improper care, so that their efficacy is greatly modified.

Some of the dental medicaments that have been found adulterated are:—

Arsenious Acid, adulterated with lime salts, chalk and other substances.

Creasote. It is very difficult to obtain a pure beechwood creasote. Much of the so-called creasote has been found to consist of crude carbolic acid to which has been added creasole and phosole.

Essential Oils; often adulterated with fixed oils, oil of turpentine, chloroform, alcohol, or essential oils of an inferior grade mixed with those of a better quality.

Aconite tincture. This is one of the most uncertain remedies in regard to strength that we use. The commercial article may be strong, weak, or sometimes almost inert. This variation is due to varying quantities of the alkaloid used in its preparation. That prepared from the root is many times more powerful than that prepared from the leaves. The officinal tincture U. S. P. contains 40 per cent. aconite strength; Fleming's tincture has 79 per cent.; the German, 10 per cent.; the British, 16 per cent.; the French, 20 per cent.; so that care should be used in selection and use of this remedy.

Terebene, as found in the shops, is often contaminated with resin, turpentine, etc.

Cocain salts, may contain organic or other impurities.

Zinc salts. These may contain impurities of lead, copper, iron, aluminum or alkaline earths.

Hydrogen peroxid has been found to contain varying quantities of sulphuric or hydrochloric acids, some samples contain also boric acid and barium.

Prof. H. E. Smith, of Yale College, made a test of some fifty samples of peroxid of hydrogen obtained from as many different stores in New York, New Haven, Hartford and Bridgeport, to determine the quality of this article as dispensed in small amounts. The samples were collected in one ounce glass-stoppered bottles and tested within twenty-four hours after purchasing.

The commercial is supposed to be a 15 volume solution ; that is one which yields fifteen times its own volume of oxygen gas.

The results of these experiments was that 56 per cent. of the samples contained from 7 to 9 volumes of oxygen, 8 per cent. contained no hydrogen peroxid, and the remaining 36 per cent. were regarded deficient inasmuch as they contained less than two per cent.

Regarding acidity, a good reaction for hydrochloric acid was obtained in thirty-three samples, and for sulphuric acid in twelve. Sometimes one only was present, sometimes both. Boric acid was present in small amounts in eighteen cases, and barium in two. These acids are either residues from the process of manufacture or they are added with a view of giving greater stability to the preparations. From whatever cause, they are objectionable impurities.

To obtain the best results from medication it is necessary to have the purest drugs ; hence the necessity of securing those of the most reliable makes, and in original packages from the manufacturer, unless they can be secured fresh from a reliable druggist.

Now, while it is important to obtain pure drugs, it is equally important to preserve them in this state. Many drugs deteriorate in quality if proper precautions are not used for their preservation. Dental medicines are particularly prone to do so, for the dentist uses the majority of drugs so slowly that a supply will last him much longer than the physician. So the care of drugs is a very important factor in their preservation. In way of illustration, we will enumerate a few that deteriorate if not properly cared for.

From the above analysis of hydrogen peroxid we see that there is a considerable and variable difference in the quality of the solutions, even in those of the same make at different times, and the quality is roughly indicated by the differing tendency to spontaneous decomposition in different bottles.

The purer the solution the less liable is it to decompose, and this is, in a degree, independent of the strength of the solution and the temperature at which it is kept.

Solutions of the commercial article, however, are very unstable and should be kept in glass-stoppered bottles, protected from light and heat. Hydrogen peroxid, ordinarily obtained, gives up a part of its oxygen at a temperature of about 34° F. and the amount is increased in proportion as the temperature is raised. Hence the necessity of keeping in a cool place, such as an ice-chest or water cooler.

Among other drugs used in dentistry that are affected by light, heat or exposure may be mentioned :

Bichlorid of mercury solutions.—They are gradually decomposed on exposure to light or in contact with organic matter.

Aristol is decomposed by exposure to light and moisture.

Europhen is affected in the same manner.

Dialyzed iron is affected by age; thickens, etc.; the solution not remaining potent after being kept for five or six months.

Amyl nitrate is a very volatile liquid, and its alcoholic solutions rapidly deteriorate.

Myrtol evaporates at ordinary temperatures.

Iodine slowly volatilizes at ordinary temperatures if exposed to light and air.

Eugenol, exposed to the air, becomes darker in color and resinous.

Terebene, if exposed to the air, absorbs oxygen and is changed.

Cocain solutions are unstable and soon decompose on exposure to light.

Tannic acid, exposed to moist air, gradually changes; and aqueous solutions, when exposed to air, mould, ferment and are converted into gallic acid.

Permanganate of potassium, in the presence of moisture, gives up the oxygen it contains and becomes binoxid of manganese.

Essential oils, if pure, are not affected by exposure, but those ordinarily obtained thicken and become resinous on exposure to air.

Ethyl chlorid is volatile at the ordinary temperature.

Nitrate of silver is somewhat affected by exposure to light and air.

Glacial phosphoric acid, if exposed to air, absorbs moisture and is changed in consistency.

Sulphate of zinc is slowly effervescent in dry air.

Aqua ammonia, if exposed to air, readily deteriorates.

Thus we realize the necessity of keeping medicaments in well-stoppered bottles and in a dark, dry and cool place to preserve them. If we are careless in this matter and allow our drugs to deteriorate, we cannot expect satisfactory results from their use.—

Editorial, Ohio Dental Journal.

Correspondence.

Shall We Be Called "Doctor"?

To the Editor of the DOMINION DENTAL JOURNAL:

SIR,—I am in perfect harmony with the sentiments expressed in your editorial, "The Title of 'Doctor,'" and I have always regarded it as an infringement upon the purely medical title. I would go further and abolish it as applied to any branch of the healing art unless the possessor had obtained an M.D. But if it is wrong to apply it to a branch of medicine and surgery such as

dentistry, which devotes its efforts to the treatment of important organs of the human body, why is it right to apply it to the veterinary surgeons, who devote their efforts exclusively to the treatment of the lower animals? I recognize the importance to the material interests of the country, in the better education of the veterinarians, and I rejoice in what they have done for the prevention and treatment of disease among cattle. But I do not see why they have a claim to a title you would deny to the dentists. The importance given to dentistry, as a branch of the healing art, by the "Royal College of Surgeons," and the Medical Council of Great Britain, the knighting by Her Majesty the Queen, of two of the representative men of our profession, are sufficient to show that dentistry occupies a social and professional position only second to general medicine and surgery.

I am fully in favor of the abolition of the title of "Doctor" as applied to dentists, but it will not be easy of accomplishment while it is given to our friends the Vets., who do not take the full medical course. It is no more necessary for the "Vet." than the dentist to take the full medical course, and it is no more necessary for them to be called "Doctor." I am rather in favor of Dr. Stack's proposal to call us by the prefix "Dentist," as "Dentist Jones." The veterinarian might be called "Veterinary Brown."

Whatever the future may bring forth, let us remember that today the profession of dentistry in Great Britain, at least, has the very highest social and professional recognition. I cannot see that it is any more necessary in America than in Europe, in order to attain this, that a "Dentist" should be called a "Doctor."

Yours, etc.,

PACIFIC OCEAN.

Reviews.

Diseases and Injuries of the Teeth, Including Pathology and Treatment. A Manual of Practical Dentistry for Students and Practitioners. By MORTON SMALE, M.R.C.S., L.S.A., L.D.S., and J. F. COLYER, L.R.C.P., M.R.C.S., L.D.S. London: Longman, Green & Co., 1893.

It is rather a curious comment on dental science and art, that it is hardly possible for distinguished teachers on either side of the ocean, to produce a work that will fully satisfy the convictions and requirements of the profession in both Europe and America. While it can hardly be denied that in the higher branches of scientific investigation, the best men in the profession in England have been for a long time, and yet remain, the leaders of opinion, it is

equally true that in the purely practical they always were, and still remain, in the background. The solution of this fact may be traced partly to the difference in the curriculum of study, and we are free to confess that we have always held the opinion, with the greatest respect for our colleagues in the United States, that of the two systems the former would prove to be the best in the long run. In reviewing contributions to our literature, it is but fair to remember this fact, as a suggestion in tolerance; and it is an unpardonable folly for either side to introduce national predilections and personal satire—as has been done by some of our contemporaries—in judging the merits or demerits of a scientific work.

From the standpoint of practice on this continent, the volume before us may, in several respects, be questioned as an authority; but as a model of concise yet sometimes hasty description, stripped of the verbiage which disfigures so many text-books on dentistry; as a clear and explicit *multum in parvo* one must candidly allow that it is a welcome addition to our literature. We could mention books recognized in our colleges as authorities, so full of literary flatulence, as to remind one of the *savant* mentioned in Moore's Diary, who wrote several folio volumes on the "Digestion of a Flea." One will be struck with the almost laconic style of the authors of this valuable work. There is no *flux de mos*. One has not to blow off a lot of froth before one can drink. There is no inflated nonsense or circumlocution. Perhaps the chief fault is in the other direction. Of the two evils we can spare best the latter.

The authors have adopted the following terms in anatomy—mandible, for inferior maxilla, maxilla being restricted to the upper jaw; temporo-mandibular, as articulation for temporo-maxillary joint; stylo-mandibular ligament, as mandibular artery and nerve respectively, for the stylo-maxillary ligament and inferior dental artery and nerve. The illustrations are mostly original and are beautiful. The list of contents comprises concise chapters on "First Dentition," "Abnormalities and Diseases of the Temporary Teeth," "Second Dentition," "Abnormalities of the Permanent Teeth," "Concussion, Dislocation and Fracture of the Teeth," "Caries," "Treatment of Caries," "The Dental Pulp and Its Treatment in Health and Disease," "Diseases of the Dental Periosteum," "Erosion," "Attrition," "Abrasion," "Diseases of the Gums," "Saliva and Salivary Calculus," "Odontomes," "Replantation, Transplantation and Implantation of the Teeth," "Extraction, Odontalgia and Neuralgia," "Fractures of the Jaws," "Necrosis of the Jaws," "Empyæma of the Antrum," "Trismus, Diseases Due to the Presence of Diseased Teeth," "Affections of the Tongue Met With in Dental Practice," "Diagnosis of Swelling About the Jaws."

It will readily be perceived by anyone familiar with the routine

of the best practice on this continent, that numerous difficulties presented by the authors are not here recognized as difficulties at all; and that certain suggestions, such as that on page 84, that "the laterals should be removed in those cases when the canine presents immediately above them, or the root of the canine is directed towards the median line, or when the laterals are placed much posterior to the arch, or are decayed," are considered radically wrong. We must, also, take exception to the statement as a general principle on page 49, that, in regulating a tooth, it "swings upon its apex, and does not move bodily." We will take the liberty of sending the authors models to disprove that statement. We doubt very much if the statement that "some practitioners employ excision extensively, cutting away large portions of the tooth" (in treating caries) will find any advocates to-day in America. The authors go on to say, "the spaces thus formed should be V-shaped. In the case of the incisors, the base of the V is towards the lingual surface of the teeth. The operation is extensively employed by Dr. Arthur," etc. Although Dr. Arthur practised the system he advocated, he had few, if any, adherents long before his death, which occurred fourteen years ago.

With minor exceptions of this kind, which, no doubt, will be modified in the next edition, the authors carefully and scientifically discuss the diseases and injuries of the teeth; though, if we have any special fault to find, it is that they have not done justice to the best work by the best men in the United States and even in England. A fair recognition on both sides of the ocean of the work of the best investigators is expected in any book of this character. In spite of this, the volume is decidedly one of the most valuable contributions to our professional literature, extremely useful to the student and the busy practitioner. The index is thorough. The publishers deserve credit for the neatness with which their part of the work is done.

Little Things. By Dr. W. H. WRIGHT, Brandon, Vt. Read before Vermont State Dental Society, March, 1893. This reprint puts in a convenient form a very interesting paper. The author specially refers to the use of phenacetine, from two to four grains, once in three hours, to reduce the temperature and induce sleep in acute alveolar abscess, with the accompanying symptoms.

A Contribution to the Study of the Development of the Enamel.
By R. R. ANDREWS, A.M., D.D.S., Cambridge, Mass.

Prehistoric Crania from Central America. By R. R. ANDREWS, A.M., D.D.S.

The former is a reprint from the *International Dental Journal*,

of the lecture delivered before the World's Columbian Dental Congress; the latter, a reprint of a paper read before the American Academy of Dental Science, Boston.

Dr. Andrews has a world-wide reputation as a thorough and unbiassed investigator. Students of microscopy should learn to be charitable to the demonstrations of their colleagues. Dr. Andrews has the genial as well as the scientific spirit. His conclusions on the development of enamel are as follows: "I am led to believe that there probably exists in developing enamel, as has already been found in developing bone and dentine, a fibrous substructure on and between which the enamel is deposited. After the enamel is wholly formed, its existence seems to be wholly blotted out in the dense calcification of the tissue. In sections of wholly-formed enamel I have never been able to trace it, although I have tried the methods of those who claim to have seen it. In regard to the beaded protoplasmic reticulum of living matter in formed enamel, I have never been able to find it. I believe with Klein that it is improbable that nucleated protoplasmic masses are contained in the interstitial substance of the enamel of a fully-formed tooth." Six fine photo-micrographs illustrate the paper.

The paper on the Prehistoric Crania, now to be seen at the Peabody Museum, at Cambridge, is of great archæological interest. In 1890, Harvard University sent the late Mr. John G. Owens to Central America, and it was during the expedition that these treasures were obtained. We will publish the paper in full in our next issue, with the illustrations which have been kindly supplied by the Publishers of the *International Dental Journal*.

Editorial.

The Laboratory.

Why do so many dentists consider prosthetic post-graduate schools like Dr. Haskell's, a necessity? What is the matter with education in the purely mechanical branches of our profession, that so many men graduate from our colleges, unfitted to master the ordinary, much less the extraordinary difficulties of the laboratory?

Many young men enter upon the study of dentistry with the idea of being expert operators, and leave with the idea that if they attain the feeblest skill at the chair, they need not be mechanics. In college life it was extremely difficult in the past, and it continues so in a lesser degree, to enforce concentration upon the work of the laboratory, and young men were busily engaged at the

chair before they could properly construct, from start to finish, an ordinary set of vulcanite. It is much the same as if the medical student began his first year with obstetrics and pathology, without having learned the first principles of anatomy and physiology. It is not uncommon to find students, in their first six months, dabbling in operative work, when they do not know how to make an articulation, or to polish an ordinary set of teeth. They have no pride in the property in the laboratory; their tools are dirty and kept in disorder; the lathes are covered with the debris of a week's polishing material, and yet they are happy. We have watched the career of some of these boys. If they have turned out clean, and careful for themselves, it simply proved that they were dirty and dishonest as students; but as a rule the habits they displayed in the laboratory when learning, followed them through life. Vulcanite has been in many ways a curse to the profession, and we may add to the list this fact, that it has been the means of developing a generation of careless and dirty students, who are a reproach and an obstruction to the higher ideal of dental practice. In the olden time of gold and continuous gum work, the laboratory was at least as clean as a jeweller's bench. There are model laboratories to-day where vulcanite predominates, but they are few and far between in comparison with the period when vulcanite was unknown. How do we explain this fact? Chiefly because students start out with a low standard of opinion as to the skill required to construct vulcanite, and they are as impatient to run as they are indisposed to creep. The result is that when these boys become practitioners they find themselves handicapped; they meet difficulties they cannot overcome, and they have to begin to learn! It is in every way wiser and more fitting to get, in the beginning of student life, the ground-work of mechanism in all its branches, theoretical and practical; a knowledge of the use and care of tools and apparatus, and to have a clinical experience of prosthetic dentistry before a thought is given to the work of dental operating and pathology. It would not only be better for the student, but certainly for the dentist in whose office the student may be getting his early tuition.

Even if a dentist intends to delegate the mechanical department to an associate or an assistant, he cannot afford to be indifferent, much less ignorant. We cannot put our patients where we put our models and our dies. The patient who consults a dentist expects his personal advice, and in most cases his personal attention. One may go to a barber and take his choice of half a dozen workmen, but as a rule, the dentist of many chairs and many operative assistants is a quack, or has a quack's instincts, and is keener to make his practice purely mercantile than professional. If dentistry is to descend to that sort of practice, it will degenerate

ethically until it is relegated to the rank of a trade. It is foolish for a dentist who desires to do the best for his patients, to place himself at the mercy of mechanical assistants, who may leave him in the lurch on short notice. Personal skill in mechanical dentistry is necessary, even to one who has to direct assistants. It seems to us that, all things being equal, a student who is occupied twelve months of his first year exclusively in the laboratory, should get a better training than where his career begins in a college, in utter ignorance of all the minutiae of the laboratory.

Dr. A. W. Harlan.

Dr. A. W. Harlan has retired from the chief editorship of the *Dental Review*, after laying its foundations deep and sure, and establishing his reputation as one of the best writers and workers in the profession. The duties pertaining to the position he held in connection with the World's Congress was a severe strain, and the worthy Doctor has earned the right to a good rest. While his many friends will miss his name as the editor of the *Review*, we are sure they will commend his good sense in taking care of his health. He is not the sort of man to lie fallow any longer than is necessary.

Dr. C. N. Johnson, who may be called his editorial pupil, succeeds to the position. As an earnest and honest man, fully alive to the wants of the profession, and enthusiastically devoted to its literature, as well as its science, he will make his mark in this new addition to his list of professional responsibilities. While speeding the parting guest with sincere regret, we welcome the coming one with heartiness as sincere.

Personals.

The profession generally will regret to learn of the death of Dr. Henry Snowden, one of the publishers of the *American Journal of Dental Science*, in the seventy-fourth year of his age.

La grippe fastened its fangs on many of our confreres. One of our Quebec pioneers, Dr. L. W. Dowlin, of Sherbrooke, was seriously affected for some time, but we are glad to know he is convalescent.

A supplementary examination was recently held by the Board of Examiners of the "Dental Association of the Province of Quebec." Messrs. J. H. Springle, of Montreal, and — Lemieux, of Quebec, received the license to practise. One gentleman was rejected.

Annotations.

The Title of "Doctor."

The *Dental Register* informs us that at a meeting of the Regents of the University of Michigan, at the suggestion of the Faculty of the Dental Department, a new degree was established—that of "Doctor of Dental Science," which can only be obtained after completing the three years' regular course and graduating as "Doctor of Dental Surgery." It is evident that the belief is widespread that the latter degree is unsatisfactory, and that there is a conviction that its possession is, in verity, no proof whatever either of a common school education or of professional skill. The conditions under which it was for many years bestowed, and the number of ignorant and illiterate men who possess it, ought to be argument enough in favor of a higher degree. Educated men who have honestly earned it, and who had to associate with the indifferent and ignorant men in their classes who received it all the same, find it difficult to explain how these lazy and ignorant students obtained it. It does not seem to us that there is as much necessity for a four or a five years' course in college as for that preliminary education which alone can equip a student for a proper career. Any lack of early training should be compensated for before students are admitted to study, and this should decidedly involve at least a good knowledge of Latin and mathematics. We see no way of removing the reproach on the D.D.S. D.D.Sc. is not a whit better, unless it requires a much superior matriculation. In Canada, this matriculation is beyond the jurisdiction of the examining and licensing bodies. The Boards have nothing to do with it, and until a student can produce a certificate of having passed it before the selected authorities—who are invariably school teachers of the highest standing—entrance upon study is denied.

One of our correspondents in British Columbia refers to this subject on another page.

Dentists in Politics.

In our last issue we stated that one of our confreres sits in the Ontario Parliament. We have received seven notifications that the statement is incorrect, that in the bye-election he was defeated. We regret this exceedingly, both for the sake of the electors and the profession.

We would just observe, *en passant*, that we wish there was the same anxiety to supply us with correct news, as to correct our news. These personal items are interesting, and we should receive them by the dozen every month.

Obituary.

DIED.—On Feb. 10th, 1894, aged fifty years, Dr. W. C. Delancy, of Halifax, N.S.

[Dr. Delancy had been in feeble health for some time, but his sudden demise so soon after returning from consulting with one of the leading specialists of Philadelphia, was sooner than anticipated, as his immediate death was caused by the bursting of a blood vessel. The doctor was a native of Colchester County, and practised dentistry in Halifax for over twenty-five years quite successfully. He was an active member of the Provincial Dental Board of Nova Scotia, and represented Ward 2 as an alderman for seven years. He was also a director of N. S. Telephone Co., and an active member and deacon in the First Baptist Church of this city. His family will have the sincere sympathy of the profession, and the breach by his death will not soon be made up.—A. C. G.]

Dr. C. N. Pierce says: "My views are that competent examining boards should thoroughly be prepared to examine, and say whether the applicant is qualified to practise dentistry. If we have these, they are for the purpose of judging of the qualification of applicants. They have no right, in my estimation, *appointed as they are by the Legislature*, to ask the applicant whether he has a diploma, or where he got his education. All they want to do is to ascertain if the applicant is qualified to practise dentistry, and it is not their business to know where that qualification was obtained, as long as he possesses it. The board has no right to ask where the information was gained. It is simply whether the information is possessed by the individual, and I would have our board so educated, and so thoroughly appreciate their position, that they should hold that ground, and not accept a diploma or anything but a thorough qualification, for when we have that the public is protected."

[It is not easy to accept the proposition that a candidate for practice should be now allowed to pick up his knowledge wherever or whenever he likes, without attendance upon the privileges which have been provided for so many years. It may apply fully to men who began practice a quarter of a century or more ago, when the colleges were mostly as wretched as they could well be. But to-day there is no excuse for avoiding the schools. The chief thing to do is to raise the standard of entrance examination, and to make such a system, as described on another page by Dr. Flagg, impossible. We quote Dr. Pierce and Dr. Flagg as we might quote many others, to show that in establishing in Canada twenty-five years ago, boards of examiners before whom all applicants for license to practise must pass, we were not behind the times.—ED. D.D.J.]

UN ORIGINAL.—On vient d'enterrer, un vieux dentiste qui a passé cinquante ans de son existence à arracher les molaires de ses concitoyens, qu'il n'avait jamais su, d'ailleurs, soigner autrement que par ce procédé radical. Dans son testament, il a demandé—idée vraiment bizarre—qu'on enterrât avec lui toutes les dents qu'il avait extraites durant sa vie. Ses exécuteurs testamentaires ont pieusement accompli ses vœux, et, dans son cercueil, ils ont fait placer les trente mille dents que le défunt avait extirpées à ses clients au cours de sa longue carrière. Trente mille dents! Y pense-t-on? De quoi monter près de neuf cent cinquante râteliers complets!—*Le Phare du Littoral.*

Translated:

AN ECCENTRIC CHARACTER.—The other day they carried to his grave an old dentist, who spent fifty years of his life in pulling out the molars of his fellow-citizens, as he knew no better way of treating them than by this radical process. In his will he asked—curious notion, that—to have interred with him all the teeth he had extracted during his lifetime. His executors have religiously complied with his wishes, and have placed in his coffin the 30,000 teeth which the deceased had drawn for his clients in the course of his long practice. Thirty thousand teeth! Just think of it!—enough to supply about 900 complete sets.

Dr. J. S. Latimer, in the *Cosmos*, draws attention to the sometimes forgotten fact that it is not necessary to make undercuts in repairing vulcanite plates; that if the surfaces are freshened and painted over with a solution of the unvulcanized caoutchouc, the new material will unite with it. Someone told him that it would answer as well to wet the freshened (scraped) surfaces with kerosene.

Dr. Day showed a novel method of expediting the packing of cases. First apply shellac varnish to the cast, allow it to harden, then add the vulcanite in pieces of from a half inch square or larger, pressing each down on the cast, and smoothing down prominences with a warm spatula until the whole surface is covered, and the building up around the teeth completed as usual. Then flask at one pouring and vulcanize.

Dr. Latimer, after shellacking, covers the surface of the cast with No. 20 tin foil, burnished smooth. Dip a piece of rubber in chloroform and paint over all the surface of the tin.

When are we to have the second edition in English of Dr. W. D. Miller's work on the "Micro-Organisms of the Mouth"? It was issued in German in Leipzig over a year ago. S. S. W. Co., please answer.

Prof. J. Foster Flagg, one of the most experienced dental college teachers in the United States, has a blunt and honest way of expressing his convictions. As an authority on college matters his opinions cannot be denied. We call attention to an article by him on "Dental Boards," from the *Items of Interest*, which goes to prove the superiority of the principle governing admission to practise in Canada, where all candidates, even if they have all the degrees under the sun, must pass before the Provincial Boards. It was the twenty years' experience obtained on the Quebec Board of graduates and non-graduates, which led us to express certain convictions as to the inferiority of much of the old system of college training, but, if what Prof. Flagg says to-day be true, it ought to direct attention to the present system as well. Why should not each State authorize the National Association of Dental Faculties, to appoint the members of State Boards, before whom every graduate would have to appear for examination for admission to practise? The *personnel* of some of the State Boards elected by the State Governor have been objected to as incompetent. The N. A. D. F. could hardly make a mistake.

INSOMNIA.—The *Universal Medical Journal* for January, among recent suggestions in therapeutics, mentions *Chlorobrom* in doses of 1½ ounces, as recommended by a contributor in the *Lancet*. Sulphonal, morphia, chloral and bromide of potassium had all failed. J. E. Huxley says to try Nature's plan instead of drugs: Lower the supply of oxygen to the blood; produce a little asphyxia; limit the quantity of air to the lungs. The heart and circulation becoming quicker, the brain will lose its stimulant and sleep will follow. Cover your head with the bed-clothes and breathe and re-breathe only the respired air. When drowsiness is produced, it is easy to go on sleeping, though you push aside the coverings and get as much fresh air as needed. The cat and dog bury their noses in some soft hollow in their hair or fur and soon drop asleep.

[But cats and dogs have neither rent nor taxes to pay; nor drafts from dental depots, nor accounts to collect to keep them awake.—ED. D.D.J.]

The *Southern Dental Journal and Luminary*, edited by Dr. H. H. Johnson, has a bright, new face, but we wish the sunshine of its countenance, would more regularly illuminate the banks of the St. Lawrence. Last year the following numbers missed fire: February, March, April and November. Up north here we like to hear from "away down south in Dixie."