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Dominion Dental Journal

Vol. VIII.

TORONTO, NOVEMBER, 1896.

No. 11.

Original Communications

THE STATUS OF DENTISTRY.*

By MARK G. MCELHINNEY, D.D.S., Ottawa.

Navigators in unknown seas have very frequently to take their bearings in order to get an intelligent idea of their course. We, like them, in navigating our professional vessel through the great unknown sea of time, must sometimes take our bearings also, in order that we may know what course we are steering, and whither we may bring up.

We wish to know whether we shall anchor in that harbor called Success, or, on the other hand, make shipwreck of a noble vessel laden with grand possibilities. Our fate is, within certain limitations, in our own hands; ours are the quadrant and the compass, the lead and the tiller.

The status of dentistry in the professions has never been rigidly defined nor universally recognized.

We are continually being confronted by the question, whether it is a profession in itself, a branch of the medical profession, or a mechanical art.

In naming the leading professions, law, medicine, engineering and theology are nearly always mentioned, but dentistry, except amongst its own practitioners, is seldom added.

Is this because it is included in medicine, or is it because the majority do not consider it a learned profession?

* Paper read before the Eastern Ontario Dental Association at Ottawa, on June 11th, 1896.

That dentistry may lay claim to rank with the learned professions is admitted by all who have knowledge of the educational requirements of the modern dentist.

If a knowledge of anatomy, physiology, surgery, chemistry, pathology, histology, metallurgy, bacteriology, materia medica and therapeutics do not constitute higher education, then is the specialist in medicine in as bad a predicament as the dentist, for the dentist has a knowledge of all these subjects.

The teeth are fully as important to and as intimately connected with the human body as are the ear, eye, nose and throat, and a knowledge of the diseases of the teeth requires as complete an acquaintance with the general system as does that of the diseases of other organs.

At no period in the history of the evolution of the race have the teeth been of such paramount importance, for they of all organs seem to have suffered most from the methods and conditions of civilization. The other organs being more vascular, have adapted themselves more readily to new conditions, suffering little; but the teeth, owing to their greater solidity, have been unable to keep pace with the rapid change of environment.

Other organs for the most part have been required to do a more varied and greater amount of work, which increased use has hastened their development, but the advance of civilization tends to throw less exercise upon the teeth, consequently they weaken and fall into decay. The civilized portion of the race, dazzled by the rapid strides along the line of labor-saving machinery, has in the recent past, taken too extensively to soft and easily prepared foods, for which error the present and rising generations are reaping a harvest of misery.

It is of the utmost importance that the teeth be assisted and preserved through this, the time of their weakness, until more sensible methods of feeding re-develop them to the required standard of excellence.

Owing to the great hygienic and sanitary advancement of the past decade, statistics show that the average duration of human life is slightly on the increase.

This lengthening of life means better average health, and better health means improved development of the teeth.

The preservation of these important organs, until such time as they begin to reap the benefit of improved conditions, is the duty of the dental surgeon.

Does not this vital and most important charge entitle him to the respect and consideration of sister professions?

Does it not entitle him to the confidence of the community in which he labors? Does it not entitle him to a place amongst the benefactors of the human race? The speaker believes in his pro-

profession, in its aims, in its methods, and its great importance to humanity, and also that the day is not far distant when the public recognition will be full and unreserved.

This is what is or should be the status of dentistry, but this is not all. It is necessary that we should know just where we are in the estimation of the public and what means should be used to attain our ideal position.

It is also necessary to be forewarned and forearmed in order to guard against the development of unseemly features in our professional existence.

At present the dentist is recognized as the professional equal of the physician and lawyer by those only who understand somewhat of his acquirements, and who have come into contact with intelligent members of his profession.

To the general public the dentist is simply a "tooth-puller." It is wonderful how many fairly well informed persons there are who imagine that a dentist's chief occupation is the extraction of offending teeth. The fact is that the majority of dentists extract but very few teeth, hardly a greater proportion than of physicians who saw off legs. Amputation of a diseased member, whether a limb or a tooth, is the final resort of the intelligent practitioner.

There are various reasons for the present position of our profession.

Dentistry, as a profession, is young and has not that antiquity which seems to give respectability. The physician is the descendant of the barber, and the dentist of the blacksmith, but the physician sometimes looks down upon the dentist because the barber is more remote than the blacksmith. Law looks down upon both because its origin is still more remote, though just as lowly.

This relative position of things is a necessary and inevitable feature of the evolution of society. It is just one of those peculiar natural laws that go to make life bearable. Jack cannot be as good as his master until he can show his master's attainments and if need be fill his place. Dentistry is a noble profession, full of grand opportunities and glorious possibilities; it is worthy of and shall attain a future as grand as that of any other profession, but the attainment of that future lies in the industry, intelligence and usefulness of its members.

The dentist must make himself the equal in attainment, refinement and intelligence of his sister practitioner, and the recognition will be accorded without the asking. If there rests any onus upon dentistry the blame lies at the door of the man who is retrogressive, churlish, selfish, money grubbing and who stubbornly refuses to put his shoulder to the wheel for the general good.

"Every man is a debtor to his profession," says Bacon, the great philosopher, who preached so much better than he practised.

"Every man is a debtor to his profession." He owes it for whatever honor it confers upon him, and for whatever emolument it brings him. It is his duty to make some return—to endeavor to pay something on account of a debt which he cannot hope to settle. To do this he must fraternize with his professional brethren, give them the benefit of his researches and ideas, assist them to carry on the work of proper organization, and try to leave the world a little the better off for his having been in it. The graduate who buries himself in his office, refusing to aid or be aided, may think that he is showing his independence, but he is in error, he merely proclaims to the world that he is willing to reap benefits unearned, and become a further pensioner upon the labors of his fellow men. The too common prevalence of such men is a heavy drag on progress, and strange to say, that while being borne along on the shoulders of others, they cavil and grumble because things are not absolutely perfect.

There are several causes which combine to injure our profession. First the indifference and selfishness of those who refuse to contribute to the general good by their presence and assistance at our professional gatherings; secondly, those who make everything subordinate to the getting of money by extortion, haggling and cutting according to opportunity; and thirdly, a class, fortunately small, of men who by a combination of causes are pitchforked into a profession whose ethics are beyond their mean conception, and whose ideas and tastes fit them only for a most menial occupation.

From these three classes are furnished the charlatans, cheap jacks and sore-heads. These are the men who reap the benefit of our united labors. This we cannot help. If, in our struggle for higher and better things, we benefit a few that are undeserving we must not begrudge it, for upon them and not upon us falls the dishonor.

Having briefly considered the position which should be occupied by dentistry in the profession, and the position it does at present hold, as well as hinting at the retrogressive elements, it may be well to make reference to some means by which the evils may be lessened and the profession advanced toward that ideal that is ever present to those who have its progress and welfare at heart.

Improvement must begin with the individual, in what manner and to what extent each must decide for himself. Most of the men connected with the various Associations are doing their utmost in this direction already.

The difficulty lies in reaching those who are retrogressive. We cannot address them in the Association, nor have we time to make a personal canvass; besides a personal canvass would make them place too great a value on themselves.

They would boast of their being run after. The only means of reaching them is through the general public. We should have a

definite policy of education, which, carried out, would enable the public to discriminate between deserving and undeserving practitioners.

The public is fairly well educated to the claims and necessities of law and medicine. This is greatly due to the already extensive popular medical literature and to the frequent public lectures on medical subjects. The public, by getting an idea of the extent and difficulties of the subject, soon place confidence in and value upon the practitioners of that branch.

Popular dental literature is very restricted. It consists mostly of ephemeral pamphlets published by private individuals.

What is required is a systematic popular propaganda of dental education. This work should have the authority of the Dental Association, and be strictly non-advertising, except, of course, for the profession at large.

The great need of dental inspection in the public schools should also be emphasized. That children's teeth should be in good order is fully as important as that they should be vaccinated. Non-vaccination invites but one disease; bad mastication invites hundreds.

It is said that the profession is overcrowded. There is work for twice as many if fifty per cent. of our people paid proper attention to their teeth. The present supply of dentists is up to the demand for services. The supply of dentists is on the increase. We cannot restrict this supply, but we can increase the demand by educating the people to their necessities. One man cannot do this, nor can two, nor even half a dozen, but a combined effort on the part of the whole profession in Ontario can accomplish wonders in a very short time.

Once the public becomes fully aware of its importance, attainments and objects, there will be no question of the status of dentistry in the professions.

Abstracts.

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

To neutralize nitrate of silver when accidentally applied to soft tissue, use common table salt.

FOR sterilizing cavities before filling, wash with antiseptic pyrozone, which is also an excellent bleaching agent. Always use a rubber dam and neutralize with ammonia or solution of bicarbonate of soda.

CAMPHO-PHENIQUE, confined under a temporary filling for a few days, is a valuable application for sensitive dentine.

TO line red rubber plates with black, coat the cast three or four times with black rubber solution cut in chloroform, allowing each to harden before the other is put on.

FOR the protection of cement fillings, resin and wax in equal parts, melted on spatula and poured on the filling before it is wet, is superior to either wax or paraffin.

TO renovate dirty wax: Melt in water; when cool scrape the dirt from the under side; melt again in pure water and add one tablespoonful of sulphuric acid when it comes to a boil.

EUROPHEN and boracic acid in equal parts makes a valuable dressing in the treatment of pyorrhœa, alveolar abscess, necrosis, or for any suppurating surface. Either powder or mix with glycerine to form a paste.

A SOLUTION of hyposulphite of sodium in water will remove iodine spots from linen, cloth, skin, in fact, from everything, almost instantly. The fresher the spots the quicker the action of the hyposulphite. This may be a welcome item to some.—*J. C. Emmerling.*

USE zinc sulphate in the treatment of pyorrhœa, after thorough cleansing of pocket and roots. Warm beeswax in warm water and incorporate zinc sulphate to form a paste, with which pack the pockets and leave several days. As the pockets fill in with granulation from the bottom the plug is forced out.

TO fill artificial teeth with gold, instead of drilling a cavity, which weakens the tooth, take an impression of the tooth to be filled in modelling compound or clay; get die and counter with low fusing metal; use thirty to thirty-two gauge gold; stamp gold and adjust the swaged piece, letting the edge of the gold extend into the wax; pack and vulcanize as usual, then finish and burnish the gold well to the tooth. The result is artistic and satisfactory.

DR. OTTOLENGUIE method for mounting Logan crowns: Prepare root and crown as usual; take pure gold plate thirty-four gauge, about size of root; form a hole for the passage of the pin; fill the hollow space in the crown with gutta percha; place the disc on the crown and press both disc and crown to place on the root. The excess of gutta percha will indicate any imperfection in the adaptation, and will also press the disc firmly against the root, leaving an imprint of the root on the disc; remove the crown and disc; trim the disc to the root, and then trim crown to the disc; set as usual.

To remove the black grease from the hand after handling flasks, use a small quantity of spirits of turpentine. Rub this well all over the dirt, then wipe with dry cloth, then use soap and water. After drying, use vaseline or glycerine. I have found this to be an excellent remedy. Try it.—*J. H. Drexler.*

EUCAINE.—Under this name a new substitute for cocain has been brought out by a Berlin dentist named Kressell. It is prepared synthetically, and chemists describe it as "a methylo estero of benzo-gloxy piporidine carboloxylic acid." It is claimed for it that it does not affect the heart, produces more extensive anæsthesia than cocain and is non-poisonous. Probably it will also be much cheaper.—*British Journal Dental Science.*

TOOTH POWDER.—Dr. N. R. Morton, sen., recently presented to the Stomatological Club the following formula for a tooth powder of his own composition, which he claims is non-injurious to the enamel :

℞ Precip. chalk,	-	-	-	-	-	6 oz.
Pulv. cast. soap,	-	-	-	-	-	2 oz.
Pulv. borax,	-	-	-	-	-	2 oz.—M.

Add perfume and sugar to sweeten.—*Pacific Stomatological Gazette.*

SULPHURIC acid in the treatment of opening root canals has proven itself to be a most valuable agent, and to Dr. Callahan are we indebted for its introduction. His method is to adjust the rubber dam, dry out the cavity, remove contents, place a drop of 40 or 50 per cent. solution in the pulp chamber, take a discarded Donaldson broach, and with pumping motion enlarge the canal or canals, washing out frequently with a solution of bicarbonate of soda until the apex is reached. You can fill immediately. Should you have an obliterated canal, seal a drop of acid in the cavity for ten or twelve hours. When opened again and dried the canal can be easily located. Do not use the broach a second time.

To line rubber plates with aluminum, roll the aluminum to twenty-eight gauge, anneal the metal with a blow-pipe until it becomes white like unburnished silver. Thoroughly dry the cast, then with the two thumbs press the aluminum on the cast and burnish it to place, commencing in the centre and working toward the edge. Prepare for adhesion of the rubber ; use a chisel and carve the plate, making small hooks about one-thirty-second of an inch long, in rows ; then reverse the rows, turning the hooks in opposite directions until the surface of the plate is covered ; anneal again and adjust the cast ; wax teeth in place as usual and pack. The pressure under the press will make a perfect adaptation of the aluminum to the cast.

Proceedings of Dental Societies.

On account of several of the staff of the Dental College of the Province of Quebec signing a petition to the Local Legislature, to give licentiates the right to hire assistants, to have the full privileges of a registered practitioner, even in the absence of the latter, the Dean of the Quebec College sent the following letter to the President of the Board :

S. Globensky, L.D.S., D.D.S., President of the Dentists' Association, Province of Quebec :

DEAR SIR,—I beg to hand you my resignation as a member of the Board of Examiners of the D.A.P.A., and as Dean and Professor in the Dental College.

A very few of us have given more than the leisure of half a lifetime to legislative and educational efforts in the interest of the profession and the public. It is a work that has not been obtruded upon the public eye, or solicited the public purse ; but it has been faithfully and unselfishly done all the same, and the public have got the benefit. Many who could find time from practice for all sorts of civil and social engagements, could spare little or none in the political or scientific interest of their profession, and the labor on the part of a few has not met with that co-operation which even the busiest of men ought to give. From time to time, for the last twenty years, we have had so much fractious litigation and factional legislation, opposed on every occasion by the mischief-makers, who are to be found in all professions, that, for my part, I am heartily sick of it, not only because of the selfishness of those who have brought it about, but almost as much because of the complacent indifference of those who are debtors to their profession quite as much as we are, and who, while careful to avoid the wounds of the warfare, were glad to get the benefits.

My chief reason I shall frankly avow. Some time ago, a so-called "assistant" in this city was convicted and fined in the Police Court for a certain breach of the Dental Law. His late employer is about to present a petition to the Legislature to have just such illegality legalized, so that the public may have the questionable privilege of being served in the dentists' offices, as they are now served in the barbers', by "assistants," whose qualifications, in the case of foreigners and non-residents, are not to be tested by the Provincial Board. It is not only sought to obtain the right for the hired

parties to act in the presence of, but also "in the absence of," the licensed practitioner, so that the dentist himself might altogether desert his practice, and under the cover of his license hand his patients over to a salaried assistant. It is also sought to obtain this right without any matriculation examination, and without exacting any of the obligations which for twenty years have been imposed upon our own registered students. In the interest of the work we have done in this Province for so long a time for the better education of students and a better service to the public, I consider this movement the most dangerous of the several obstructive measures with which we have had to contend. If a licentiate has knowingly instigated the evasion and breach of the present law, it would surely be curious justice in Quebec that would reward him by legalizing that which the courts had proved to be illegal. It is a most ingenious idea of jurisprudence, surely, that would make the crime of yesterday the prerogative of to-day; and if it could only be extended sufficiently in its application, by petition, it might even empty the penitentiaries. The legislation asked for on behalf of irresponsible assistants would be an immediate damage to the French and English students of Quebec, who are now complying with the law, as well as to those of us who do not believe in the principle of handing over our patients to assistants who are unable or unwilling to submit to the requirements of the Provincial Board. It would open the way for fresh infractions. The men who stretched the interpretation of one law to its breach would not hesitate to do it again. It would place the public at the mercy of a class upon whom the governing body of the profession have no check, and would exempt them from the penalties to which we, as established licentiates, are subject for certain unprofessional conduct. It would leave to the employer of these salaried assistants, even if he were a quack or one who resorts to quack methods, the prerogative of judging qualifications for practice which the Legislature has, since 1868, confided exclusively to the elective Provincial Board.

It has been enacted for over twenty-five years by the Legislature that no one shall practise dentistry in Quebec in the way the petition implies unless he has passed the required examinations; and it is now further compulsory that all applicants must attend the Dental College. I fail to see why these conditions should be imposed upon our own indentured students who have passed the severe matriculations and completed the course, and withdrawn from those who are unwilling or unable to do so. In this question, even the possession of a foreign diploma is well-known to be no proof of a proper qualification. That is a well-established fact in Quebec. If any dentist finds that his practice is too extensive, or that he cannot himself do certain work, he may hire assistants to do it, or if he prefers trading horses to practising dentistry,

he should be influenced by the same ethical spirit which animates the medical and legal profession under like circumstances. Instead of paying a paltry salary to some impecunious assistant, he can get a skilled partner, or he can engage our own registered students, who are entitled to preference if anyone is to be engaged. It would be a remarkable thing in medical practice if a physician's patients were exposed in his office to transference to unlicensed practitioners. It is, within the limitations of dental practice, as dangerous in dentistry.

Moreover, in the case of a profession such as ours, which deals with dangerous poisons, and which by neglect or ignorance exposes its patrons to the consequences of unclean and ill-treatment, the public has a right to demand that assistants as well as registered students should submit their qualifications to proper test, not in Chicago or Hong Kong, but in the Province of Quebec.

These are my convictions. I am sure they cannot be acceptable to my confreres who have signed the petition, and as I find on the list of names those of several gentlemen with whom I am associated in the educational work of our Province, I take it for granted that my convictions in their opinion are wrong, and therefore I feel bound to resign. When I find it necessary to hire salaried assistants to do my business, I shall resign practice, too.

W. GEORGE BEERS, L.D.S., D.D.S.

Montreal, October 26th, 1896.

As soon as the signers discovered the true purport of the petition, they sent the following protest :

To the President and Members of the Board of Examiners of the Dental Association of the Province of Quebec :

Having been led by misrepresentation to sign a petition to the Legislature, referring to dental assistants, we, the undersigned licentiates of the Province of Quebec, demand the withdrawal of our names. We are utterly opposed to the objects of said petition, believing it would have a tendency to expose the public to abuses, over which the Board of Examiners would have no control :

Wm. F. Giles, C. F. Morison, Louis Franchere, Gaston Maillet, T. D. Tansey, J. S. Ibbotson, A. F. Ibbotson, E. R. Barton, N. Fisk, W. J. Kerr, H. H. Kerr, P. P. Vosburgh, F. X. Séers, L. P. Bernier, L. E. Mauffette, W. E. Bourbonnais, E. Larose, J. P. Cadieux, J. B. C. Trestler, E. M. Gravel, R. Simpson, G. W. Oliver, C. M. W. Rondeau, James M. Shaw, A. Clifford Jack, Arthur Lemieux, Gustane Lemieux, F. D. Mongeon, Albert Dumong, Joseph R. Lalonde, J. G. A. Gendreau.

Selections.

HYGIENE.*

BY T. E. POWELL, D.D.S., Chicago, Ill.

There are few vocations which try the endurance of man, physically speaking, to a greater degree than the practice of dentistry. The dentist is closely confined to the office during that part of the day which could be most beneficially and pleasantly spent in the open air. Not only is he confined to the office during this period of sunshine, but his mind is intensely occupied with difficulties which require his earnest and most painstaking efforts to overcome. The concentration necessary to the satisfactory execution of gold fillings, crown and bridge work, etc., etc., would seem to exhaust the nervous force of a robust man; but, in addition to this, the dentist must soothe nervous and frequently hysterical women, and manage children who have been prepared beforehand by tales of pain inflicted, which are equalled only by tortures conjured in the minds of North American Indians of two hundred years ago.

Having worked all day under such trying conditions, how many men are fit for anything except the bed when night finally does come?

Not long ago a lady came into my office and said she had always gone to a certain very busy dentist, but he had become so cross that she could not stand it any longer. Said she: "He is so irritable, I don't see how any one can endure his bad temper."

Notwithstanding the constant strain on our nerves, and the positive certainty of either an early grave or permanently impaired health, we drive along, day after day, with little or no effort to counteract the effects of overwork by pleasant and healthful recreations, or any consistent observance of the laws of hygiene.

Webster defines hygiene as "a system of principles or rules designed for the promotion of health;" also, "that department of sanitary science which treats of the preservation of health."

In this paper, I shall endeavor to offer some suggestions which will, I believe, if followed by members of our profession, do much toward the maintenance of a perfect mental and physical equilibrium.

Let the first consideration always be that of good ventilation. Be sure that there is plenty of fresh air in the room all of the time.

* Read before Hayden Dental Society, September 21st, 1896.

There should be no direct currents or draughts. The windows ought to be so adjusted that the air may enter and circulate without disturbing any light substance in the room.

In order to accomplish this the windows must be opened from the bottom and a guard placed in front of the open space, so as to direct the air toward the upper part of the room.

Even in the coldest weather this may be done without any discomfort, provided the room be properly heated, and the heat should always be regulated with a view to proper ventilation.

A thermometer is indispensable if perfect ventilation and a normal temperature are desired. Nothing has a more depressing effect or causes such a marked irritation of the nervous system as an overheated, poorly-ventilated room.

In reference to work at the chair, one should try to keep an erect position. If any one must assume an unnatural position, let it be the patient.

Manipulate the chair instead of the spinal column. Learn to work with the glass instead of crouching as if about to spring upon your prey. Avoid the patient's breath if possible. The adjustment of the rubber dam mitigates this evil. Do not hurry; do not worry; but do your work calmly and deliberately. Allow your patient's excitability to increase your imperturbability. Nothing will deepen the furrows in one's face or bring on physical wreck more quickly than fretting or worrying. Do not give appointments for trying operations during the later hours of the day, when you are all tired out, but try to arrange to have the easiest work come during the last two hours.

Use an antiseptic solution on your hands after washing them, as it is not safe to depend on soap and water. It has been thoroughly demonstrated that soap and water will not remove diseased germs from the hands, however carefully you may wash them. How frequently operators may be seen using their teeth as a receptacle for instruments while operating. Such instruments, for instance as the mouth mirror, gold pluggers, foil carriers, etc.

The danger of this practice is apparent. We are too careless.

Carelessness frequently costs a man his life. Let us watch these points. Good men are scarce.

There are many other things I might suggest in this connection, but the length of this paper will not permit.

I want to speak of some things we should do outside of the office.

Some do observe religiously many of the points mentioned above, but make no effort whatever to keep the body in perfect health by using, outside of the office, some of the numerous means by which the health may be maintained.

There is such a diversity of ways by which we may gain the necessary amount of recreation, that it is useless for me to

particularize. My aim is to emphasize the necessity for this recreation, rather than the manner in which it is obtained.

Every animal requires a certain amount of sunshine and fresh air, and man is no exception to the general rule. There is no reasonable excuse for the neglect of this side of one's nature, when any one can have for a mere pittance a trolley ride, or a walk in the park free gratis. If neither of these suits, there is horseback, carriage or bicycle riding, ball, tennis or croquet playing. These, and the many additional diversions which the ingenuity of man has furnished, would seem to provide means by which an earnest seeker for health may be gratified.

When we have done with the physical, much remains yet to be attained. The mental nature, like the physical, must have a diversified field of activity in order to have that roundness of form and elasticity of fibre, which is so much admired and desired. The desire to become a mental gymnast is father to its accomplishment.

We must not, of course, neglect our own field of literature; but the truly ambitious mind will not be satisfied with this. Scientific and secular literature can be obtained in such abundance at prices within the reach of all, that he who hungers may be filled. There are the daily papers which give us all of the current news of political, business and social life; and the magazines which teem with articles more or less patent to every walk in life; articles, some of which are learned and intellectual enough to please the most profound; others, which the most superficial reader may characterize as verbose. But the rule for the busy man should be to use that which will give the most pleasure and at the same time yield the largest amount of instruction. It should ever be our aim to improve the mind, and to do this much judgment is required in the choice of reading matter. The study of scientific matter probably gives a better return for the amount of time expended than the study of either art or literature, and it has the additional advantage of being particularly helpful to us in our special work.

In closing, I desire to speak of moral hygiene, so much neglected and yet so indispensable to the fully rounded, thoroughly reliable professional man. We cannot stand still in any part of our natures; we must progress or retrograde, and it will surely be the latter unless an effort be made toward the former. No man can do his best unless the spiritual nature which dominates all the rest is in perfect health. This condition of moral health may be preserved without allying one's self with a religious organization, but it cannot be either acquired or maintained without a constant effort. A system of principles or rules which will best promote this ideal condition must be formulated by each one for himself. No set of ready-made rules will answer the purpose. The public expects us to be above reproach, and unless the interior is clean,

the exterior must, sooner or later, give evidence of the true state of things.

I have tried in the paper to show what hygiene means as applied to dentistry, as viewed from my standpoint. Much more might profitably be said, but if I have awakened sufficient interest to provoke a lively discussion, I shall feel amply repaid for my trouble.—*Dental Review*.

GINGIVITIS.*

By L. L. DAVIS, D.D.S., Chicago, Ill.

In selecting this subject as a topic for discussion this evening I had in mind a paper by Dr. W. A. Mills, of New York, read by him at the union meeting of the Washington City Dental Society and the Maryland State Dental Association in April, 1895, on "The Toxic Effect of Quinine on Gum Tissue," in which he says: "The first condition to attract my attention was the peculiar anæmic and frozen-like appearance of the gum, especially that portion filling the gingival spaces." He proceeds to state that on close examination no attachment whatever of the gums to the teeth from the cervix down to the alveolar ridge could be found, although apparently there was no separation, owing to the gum hugging the teeth closely.

The general condition of the mouth in the primary stages of this disease is the cleanly and apparently healthy state of the teeth and surrounding parts; but as the disease progresses there is a wasting and contraction of the tissues surrounding the teeth which eventually terminates at the alveolar border. All signs of wasting then disappear, leaving the teeth clean and apparently elongated. During the entire progress of the disease there is at no time any pus formation, as in pyorrhœa, no congestion of the tissues, no calcareous deposit of any kind; no sense of pain or tenderness in teeth or gums, the patient being unaware of any abnormal condition.

He thus calls our attention to a new dental lesion not heretofore described in dental literature, and then as the result of his observation advances the theory, "the habitual use of quinine without the advice of physician or dentist" as the cause. He says all the well-defined cases were found in mouths of patients of nervo-bilious temperament, ages ranging from eighteen to thirty years, and that all were chronic sufferers from neuralgia, colds, malaria and general debility.

* Read before the Odontological Society of Chicago.

Dr. Mills' paper describes a condition of the gums that has been noticed by the essayist a number of times, but in patients of a totally opposite character from those Dr. Mills described, and the cause ascribed to an entirely different source.

Dr. Mills fails to state the sex of the twelve cases observed by him, and therefore our comparison in this respect cannot be made.

No regular data has been made of the cases observed by your essayist except during the last few months, and this is the result :

A. B., male ; age, thirty-eight ; large and well-formed ; active ; teeth with few cavities ; gums blanched, firm, but receded considerably from enamel margin, and seemingly tightly attached, but scaler shows that there is no attachment to teeth except to labial surface of right superior cuspid ; recession more marked on palatal roots of right superior molars and left inferior molars ; very marked on left superior and inferior cuspids and incisors ; mucous membrane of palate white and hard, with rugæ strongly outlined ; a few nodular eminences with bright red centre on the right side of hard palate, tongue whitened, but with fungiform papillæ strongly marked.

History. Health always good ; outdoor occupation ; seldom had a cold, although there was evidence of mild catarrhal trouble ; an inveterate smoker, smoked from ten to fifteen cigars a day, and sometimes a pipe at home ; cleansed his teeth twice a day, and saw a dentist every year ; very little salivary calculus, and only on lower anterior teeth and upper molars, but almost a black covering on the exposed roots, especially on palatal surface of superior and lingual surface of anterior inferior teeth ; seldom took quinine.

X. Y., male ; age, twenty-two ; well built, but a trifle slow in action ; teeth of good character, except first molars ; gums whitened and hard, with a marked stippling ; gingivæ of the anterior teeth on right side showing most strongly the nonattachment to teeth, also the gums near palatal root of superior first molar on left side ; some salivary calculus on lower anterior teeth, very little on molars ; superior teeth blackened on palatal side ; calculus black and hard on the lower teeth.

History. Smoked a meerschaum pipe nearly all the time in office, and held it between the cuspid and lateral on right side, so the smoke could not then get into his eyes when writing. No malaria ; had a cold once in a while ; took quinine sparingly, and hot whiskey often when he did have a cold.

J. L., male : age, fifty-four ; lake captain ; seldom went to the dentist ; calculus on nearly all the teeth ; roots exposed and black, gingival or interproximate space large, slight reddening where

calculus was present ; gums hard and white, tongue also white, except where the fungiform papillæ showed ; pyorrhœa present at inferior left central lateral and cuspid, also marked on palatal and proximate side of superior lateral and cuspid ; buccal surface of roots of molars on right side decayed and blackened ; smoked considerably, holding cigar or pipe on left side of the mouth ; chewed when not smoking, and usually held quid on right side ; took quinine when he thought he needed it, but not frequently, usually in 3-grain doses at intervals for twenty-four hours.

These, together with observations made other times, has led the writer to infer that the wasting of gum tissue or recession was probably due to the extreme use of tobacco, with possibly an inherited tendency to gum absorption. It is evident that there is no pain or inconvenience attendant upon the disease, for as a rule the patient comes for services in the nature of filling, and is not suspecting a new disease to be sprung upon him. The total absence of malaria, general debility, etc., in these cases, and the sparing use of quinine, certainly cannot warrant the assumption of quinine poisoning ; and from close questioning nothing can be deduced that would lead one to suspect mercurial poisoning, for, as Dr. Mills has observed, there is no wasting of bone tissue or loosening of the teeth (except the one case cited with pyorrhœa present). Many times the patient may be wrongly suspected of mercurial poisoning, when other causes prevail. One patient, at present under treatment for gingivitis, a neurasthenic female, age, twenty-nine, recently presented with mucous membrane of both upper and lower jaw a brilliant red ; the slightest touch caused the blood to flow, and hence the disease was aggravated by the presence of decomposing food particles and mucus upon the adjacent teeth, through the patient's unwillingness to thoroughly cleanse the teeth ; the gingivæ between the lower cuspid and lateral on left side swollen considerably, and detached from the teeth ; only very little calculus was present, and the disease not present on the lingual aspect, nor were the gingivæ detached or swollen to any great extent on the other lower teeth ; pyorrhœa was present at the palatal and proximate sides of the superior incisors and cuspids ; ptyalism is quite marked. The cause in this case is undoubtedly pregnancy.

Before closing, one other case, the cause not so clearly defined, in a male ; age, twenty-one ; of fine physique : good habits ; his family physician a personal friend of mine, so that I could have readily obtained any history of taint—presented with gums apparently normal with the exception of those of the eight anterior teeth of upper and lower jaws ; slight deposit of calculus, but not sufficient to warrant my ascribing the disease present to this cause. The gingivæ between each of these teeth had sloughed,

leaving the gum tissue in an almost straight line for the anterior teeth, with very little swelling or redness except at gum margin. The trouble responded readily to treatment with nitrate of silver and the constant use of a mouth wash.

The many forms and causes of diseases of the gums require careful tabulation, and I present these cases hoping to draw out a good discussion, so that we may all benefit by it.—*Dental Review*.

HOW WORRY AFFECTS OUR BRAINS, AND HOW TO STOP IT.

Worry will kill!

Modern science has brought to light nothing more interesting and useful from the standpoint of science than this fact, and, more remarkable still, it has determined and can give in full detail, because of recent discoveries, just how worry does destroy the nervous system.

It is believed by those who have followed most carefully the growth of the science of brain diseases—that scores of the deaths of each year, deaths set down to other causes, are due to worry, and that alone. The theory is a simple one. It is so simple that anyone can easily understand it. Briefly put, it amounts to this: That worry injures beyond repair certain of the cells of the brain; that the brain, being the commanding centre of the body, the other organs become gradually injured, and some diseases of these organs or a combination of them arising, death finally ensues.

Thus does worry kill. Insidiously it creeps in upon the brain in the form of a single, constant, never lost idea, and as the dropping of water over a period of years will wear a groove in a stone, so does worry gradually, imperceptibly, but no less surely, destroy the brain cells that control and enervate and keep in health every other organ in the body.

Worry, to make the theory still stronger, acts like an irritant at certain points, and, if long continued, produces serious results, but produces little harm if it comes only at intervals or occasionally. Occasional worrying the system, the brain itself can cope with easily. But the iteration and the reiteration of one idea of a disquieting sort the cells of the brain cannot long endure.

It is precisely as if the brain was struck lightly with a hammer every few seconds, with mechanical precision, for days and weeks, with never a sign of let up or the failure of a stroke. Such a succession of blows from a hammer would, of course, injure the brain irretrievably almost immediately, but it helps to illustrate the idea and make it more vivid.

For just in this way does the annoying idea, the maddening thought that will not be done away with, strike or fall upon certain nerve cells, never ceasing, and week by week diminishing the vigor of these delicate organisms that are so minute that they can only be seen under the microscope.

"Any one-sided work or effort," says Dr. Jacoby, "is deleterious, is harmful. A person worries on a single subject the same as people frequently overwork certain muscles. But in the former case the worry is constant.

"Now, the concentration of painful thought long continued not only tires out the nerve cells that are being used in this constant worry, but the other nerve cells which are not used at all, lie, so to say, dormant and waste for lack of sufficient exercise. This is the first principle. In corroboration of this it is a well-known fact that a person who gets ill from worry continues to worry over that one thing, broods over it, lets it absorb him and his thoughts to the exclusion of all his other interests, bringing into play, it is supposed, continually the same set of nerve cells. It is the same as if a man used one muscle or one set of muscles continuously, only the effect on the nerve cells is far worse.

"This is the reason why a brain will wear out far more quickly under worry than under work, there is an attenuation of exercise and repose. There must be a judicial alternation between the two. All parts of the brain must be exercised, and then allowed to rest.

"The cells that are affected by worry are those in that portion of the brain that preside over the intellect, the cortex of the frontal lobes or the upper layer, this lying directly under the upper part of the forehead, where the hair begins in the average man, or possibly a trifle above that.

"It is wonderful the amount of work a brain can stand if it is given proper intervals of repose. I don't believe a brain ever broke down yet from overwork. Many have from worry.

"The 'worry,' the thought, the one idea grows more and more on the person as time goes on, until finally he is unable to throw it off at all. It haunts him at all times, and he cannot will it away. It takes possession of him in his subconscious hours, and clings to him even in sleep. He dreams of it each and every night, and wakes up to have it on his mind again on the moment.

"Through this the mind wears out in one direction, one set or area of cells are affected. In some men it might be one set, in others another. As to that science does not know. But it does know that it practically destroys one set of nerve cells. Now these cells are related or connected, not only together by little fibres, but these cells of the intellect are joined, too, by a network with the cells of the other parts of the brain. So, if one part of the mind wears out one set of cells, all the mind, and eventually

all the body, is affected, the brain being the commanding centre, for the chain is as weak as its weakest link.

"The effect on these nerve cells is probably a chemical one as well as mechanical. In consequence, or as a result of work, what are known as 'fatigue products' are formed in the cells. These are poisons, and the German scientists call them 'Ermudungs Stoffe.' Under normal conditions, that is, when they are the results of work, not continued worry, these poisonous 'fatigue products' are thrown off by the cells themselves during the periods of rest and relaxation.

"It has been conclusively proved that these 'products' produce direct microscopic changes in the nerve cells. The theory is, that if they are quickly thrown off, the cell returns to its normal condition; but if left there by the cells, being unable to perform its proper functions, the poison becomes fixed. The changes these 'fatigue products' bring about were shown by Hodge in this country in a series of experiments he made with swallows. He carefully examined the cells of the spinal cords of birds who had just been flying long distances, and side by side with these put under the microscope cells of the spinal cords of birds that had not been out of their cages at all. He found decided differences in the two sets of cells, thus proving clearly that physical fatigue does produce microscopic changes in the cells of the spinal cord.

"Now, it is quite impossible, of course, to get evidence of mental fatigue in the brain of an animal, and the nervous cells of the brain of a man can hardly be examined under the microscope after he has been exerting himself mentally in any way; but the supposition, is that mental fatigue in the cells of the human brain produces changes. These 'fatigue products,' as has been already said, are known to be poisonous.

"The whole nutrition of the body is dependent on the normal action of the brain. In time these cells, acted upon by poisons so that they are given no opportunity to throw off, become decadent; they lose their vitality, and, doing this, affect the cells near them. In the body the effect is shown in this way; the body itself commences to fail. The man cannot eat and cannot assimilate. The brain is intimately connected with each of the other organs, and one of these, or perhaps more than one, being imperfectly nourished and provided for, falls into some sort of local disease. Of this the man dies. His death is ascribed to the local disease, but it was worry that brought it about.

"To explain this matter of worry still further, I might say that there are three different kinds of irritation that could destroy a brain cell. They are mechanical, electrical and chemical. The changes in the cells just described are brought about by nothing

more or less than chemical irritation. The action of the hammer, suggested by way of illustration, is purely mechanical, for example."

Little is known about thought and perception, judgment, reason and their attendant senses, except that they are all laid directly behind the frontal bones, and that it is here that the will power is generated, to be telegraphed into every corner of the body. These cells here, some of which seem to be constantly in service, others only at times, are really the most important in the brain. They are the seat of the mind, and it is these, and these only, that the malady of "worry" strikes at to kill.

A man may worry, it is true, for years and there may be no very serious results. A woman may fret on and on, and still keep fairly well. But there is always the danger of "possession" of the "one idea," suddenly grown to be dominant, mastering the will power and paralyzing, as it were, the working of the system.

Death does not, in a large proportion of cases, result. A man or a woman may be sick almost to death with any disease, and yet not die. "Worrying," as a disease of itself, has other dangers. Such a thing as a partial injury is possible—an injury to the brain cells that will not kill, but will bring discomfort and weariness and incapacity to do good work, think good thoughts, or correct ones, form good judgment, and this is almost as bad as death itself.

Now that the scientists have expounded the philosophy of worry, it will be seen that it is as dangerous as an electric battery, and should be carefully avoided. It is good, at least, that one of the "ills that we know not of" has been made manifest.

HOW TO ABOLISH WORRY.

How can worry be abolished? That is the question which we propose to answer. Simply drop the morbid idea that causes it and put in its place a true thought. Let go of it! If it comes back again kick it out as you would a robber entering your room. Whenever it appears drive it away. Stamp your feet on the floor. Clinch your fists if it needs be, but in some way oust it. Do not let it have possession of the chambers of the mind, to leave its evil effects. But do not fail to put other ideas, other thoughts in its place. If not, other and perhaps worse ideas involuntarily come in and fill the void, and the last state of the person may be worse than the first.—*Journal of Hygiene.*

THE TOOTH-BRUSH.

By E. C. MOORE, D.D.S.

After promising *The Odontoblast* a short paper for its initial issue, I began to think of some important subject upon which to write. Naturally, the editor would think I would choose a subject within the realm of mechanics so far as it relates to the mechanical laboratory, but as I am considered something of a crank on the subject of tooth-brushes among my patients, and of which title I am rather proud, it occurred to me that I would, in the hope of doing good, carry my crankiness a little outside of my practice and endeavor to impress the readers of this journal with the important office of the "tooth-brush," and if I succeed in that, they are in a position to carry the war still farther into Egypt.

It has been said that "the pen is mightier than the sword," so I will say that the tooth-brush is mightier than the excavator and plugger. Now, while I verily believe this, I am at a loss for language to sufficiently and forcibly impress the readers of *The Odontoblast* with the importance of the proper tooth-brush, properly used. "Ah, there's the rub;" proper brush, properly used. The proper brush is the one which will, by its shape, reach as nearly as possible all parts of the mouth and all parts of the teeth in the mouth. By its shape, I mean the shape of the handle or that part into which the bristles are set, the arrangement of the bristles themselves and the strength or stiffness of the bristles. The handle part should be a little curved in shape, the bristles being on the inner side of the curve and set in tufts, not close together, and because of this fact they should be very stiff, the writer preferring the unbleached bristle when he can get it. All brushes grow less stiff after being put into commission, and this is the very reason they should be stiff to start with. This and the fact of not being set closely together is another very good reason for not setting the bristles compactly in the brush. The fact of such a brush becoming very filthy, anyone may convince himself of by taking one of these brushes after it has done duty a few months; by parting the bristles and looking closely into it, it is just like parting the hair on a dog's back in flea time. You don't see the fleas quite so plainly, but they are there just the same, armies and myriads of them. With open brush this condition does not exist, because the construction of it allows of thorough washing and a thorough circulation of air, and consequently a thorough drying of the brush and return of a rigidity of the individual bristle and series of bristles. The curved shape of the handle is for the purpose of

bringing the brush end more easily under control of the hand while using. At the extreme end of the brush a larger and longer bunch or tuft of bristles should be placed, enabling the user to reach more effectually the palatal and lingual portions and surfaces of the teeth, as well as the posterior aspect of the molars. So much for the shape of the brush. The "Prophylactic" nearer meets the requirements in shape than any other brush known to the writer, but the quality of bristles falls short of meeting the requirements.

The brush, like many other good things, is deserving of care, and it should always be thoroughly washed in running water if possible—the water forced out by drawing the thumb over the bristles, and after that dried upon a towel. Three of these brushes should be in use, as it were, at a time, and consecutively, thus allowing in the interim sufficient time to dry the bristles, making them more effective in their turn for use.

Thus far the easiest part of my task is performed, that of describing a good and effective form of tooth-brush and in speaking of its importance; but to impress those who may chance to read these lines, I hardly know how to choose words and frame sentences of sufficient force to make them understand my sincerity and the importance of the tooth-brush when thoroughly used. All the dentists of the world fall into insignificance when compared to the tooth-brush, when used as it should be. Now, this may seem to be putting it pretty strongly, but I hope, dear reader, you will not consider this a mere figure of speech, but I honestly believe this. I often preach this short, but I hope effective, sermon to my patient after having finished everything I can find to do in the mouth in the way of filling, or otherwise restoring the mouth to normality: "Now, I have done everything I can for you—that is, I have done my whole duty—and it lies in your power to do more for the preservation of your teeth than I or any other dentist in the world can do." This naturally leads to the inquiry, "How do you mean?" This gives me the opportunity to tell about the brush, the kind, and all that; and lastly, but not least, how to use it, without openly accusing them or insinuating that they don't keep their teeth clean, all of which one might do and adhere strictly to the truth. But this will not do. Better to lie under some circumstances than speak the truth. Get at it in some other way. The subject being opened, read the sermon (not on the "Mount") on the tooth-brush; read it loud and strong. Tell them and prove to them in language as strong as you can command that you will save them money and suffering if they will practise that which you preach to them. It is not an uncommon remark for patients to make that they don't see why their teeth decay when they brush them three or four times every day, and at the same time they say it one might give a very close guess what their last meal consisted of from the fragments about the molar teeth.

The brush to be effective should be used in every direction, and particularly while holding the brush the movement should be in a horizontal manner to brush down upon the upper teeth and up upon the lower teeth, allowing the stiff and scattering bristles to go between the teeth to remove every particle of food finding lodgment there. And your subscriber should not be afraid to brush the gums at the same time, even if they should bleed; the more blood the more I would recommend brushing, thus relieving congestion by depletion.

The importance of cleanliness is a strong point gained. Now thoroughness is the next. I believe a great many people brush their teeth in the same way that a great many dental students take their dissecting—it's part of the course and they are obliged to take it. So with brushing the teeth; the simple form is gone through very gingerly and the individual makes himself believe that he has performed his duty. So I will say in concluding that the burden of my song and prayer is and shall be till I die, thoroughness of cleanliness, and I also hope those among the dentists and dental students who may read this may convince themselves, if necessary, of the importance of what I say, and when so convinced they will be better qualified to go and preach this gospel in the highways and byways.

DENTAL TRAINING.

Questions of dental education are occupying much attention in the journals and dental society meetings, especially at our annual gatherings, and are often treated from a narrow and erroneous point of view. There are those—usually who know little or nothing of practical teaching—who feel that they are annually called upon to assail the dental colleges and their methods of instructing; others calling for difficult entrance examinations. Some would have it so high as to exclude all who have not a classical education, etc. Such examinations many of these advocates would themselves utterly fail in were they put to the test.

The school which requires a rigid entrance examination and has a large faculty, teaching a great variety of subjects—all of which may be good in their way—may fail to graduate students who will make successful practitioners. Its students may have what Prof. Gross designated as "photographic memories and microscopic brains." They may be storehouses of dental and medical theories, and yet fail utterly as practitioners, and never contribute a single fact to the advancement of their profession. As the *Journal of the American Medical Association* says, editorially, upon the subject of

professional education: "Many writers use the term medical (or dental) education as if it were something complete or finished. Diplomas are often considered as evidence of this, and are offered as guarantees of scientific skill."

These are sad delusions. A medical or dental education, we may say, is never finished, and the true aim of our schools is, or should be, to train men to observe and to think for themselves, not to overload them with theories. The mere memorizing of the facts which are seen by the microscope would never make a practical microscopist; and this holds true in any other channel of scientific work. The assumption of truths without personal examination, and the inability and want of training to examine independently, is too often the case. The facts must be sought for, examined and compared.

The dental school that trains its students to be explorers, to study accurately the various phenomena of health and disease in and about the dental organs, inspires them to be ever on the alert for new facts, or new conceptions of old ones, who are never learned but always learning, is the ideal one.

Students should not be allowed to accept the facts presented in the lecture or clinic-room by their teachers, and found in their text-book, as conclusive, but should be trained to verify these by personal examination and experimentations. Too often have students, who by memorizing a few facts as given by the incumbents of the several chairs during the lecture course, been given their diplomas with the full right to practice and to be accepted as representatives of the profession. But dental teaching is each year, through the efforts of the Association of Dental Faculties, being placed upon a more uniform and broader scale. More time is given to the several laboratories and class-rooms, where the instructions are more of an individual nature, and where the student is taught and encouraged in using his powers of observation and reason, and, in making personal experiments, to be accurate and true. Manual training is an important factor in dental education, and those who were fortunate enough to attend the meetings of the National School of Dental Technics, recently held at Asbury Park, must have been impressed with that fact. Dr. E. C. Kirk, an acute observer, in commenting upon this point, says: "The application of the laboratory method in dental education, the introduction of the technic method in our schools, by bringing the instruction in operative and mechanical dentistry and therapeutics into line with the laboratory method as utilized in the departments of pathology, chemistry and histology, is a most important step towards cultivating a scientific habit of mind and a desire for original research among the dental students of to-day, which must tend to elevate our standards and ideals and react favorably upon future methods of practice."

Now that dental teaching has reached a broader and more uniform basis, our schools should require something more in the way of examinations than recitations and the memorizing of facts. The mere gathering and storing of dental knowledge can never make a successful dentist. While no college can educate a man in the true sense, yet they can prepare him to use his powers of observation and reason; and when a student realizes his limitations and the personal equation of error that is liable to complicate his observations, he becomes a scientist in the highest meaning of that word. Of course, all of us cannot be scientific investigators in the broad sense; but, as has been observed by others, it is, after all, a matter of degree, for everyone is, or should be, capable of observation, and able to interpret and report such observation.

While many of our colleges are excellent, they have not, as a rule, introduced this matter of personal observation and the recording of same in their curriculum. We have the medical journal referred to above as authority, that an English medical school has recently adopted a plan requiring all senior students to spend a good portion of the last year in observing and writing up cases, the notes of which are corrected by the teachers. In this way the senses and reason are trained to observe and compare the relation of facts—a move, we think, worthy of emulation.—G. W. W., in *International Dental Journal*.

NEW DENTAL LAW FOR MARYLAND.

Chapter 378 of the Maryland laws of 1896, which was approved April 4, 1896, repeals Article 32 of the Code of Public General Laws, entitled "Dentistry," and re-enacts the article with many changes in it. The new law makes it unlawful for any person to practise dentistry in the State unless he shall have obtained a certificate therefor. It then provides that there shall be a State Board of Dental Examiners, which shall consist of six practising dentists of recognized ability and honor, who have held regular dental diplomas for five years. They are to be appointed by the Governor out of a list proposed by the Maryland State Dental Association. Six years is the regular term of office. Any member who shall be absent from two successive regular Board meetings shall cease to be a member of it. The regular meetings are to be held in May and November of every year, with special meetings as required. Any person twenty-one years of age, who has graduated at and holds a diploma from a university or college authorized to grant diplomas in dental surgery by the laws of any one of the United States, may be examined by said Board with

reference to qualifications, and upon passing an examination satisfactory to said Board, his or her name, residence or place of business shall be registered and a certificate shall be issued to such person. Any graduate of a regular college of dentistry may, at the discretion of the Examining Board, be registered without being subjected to an examination. A temporary certificate for a specified time may be issued by the officers of the Board to any applicant holding a regular dental diploma duly registered by a Board of Dental Examiners created by the laws of any one of the United States, but no such certificate shall be issued for any longer time than until the next regular meeting of the Board. The fee for this temporary certificate shall be \$5.00. Transcripts from the book of registration, certified by the officer who has the same in keeping, with the seal of the Board, shall be evidence in any court of the State. Every person shall be said to be practising dentistry, within the meaning of this Act, who shall for a fee, salary or other compensation, paid either to himself or to some one else for services rendered, perform operations or parts of operations of any kind pertaining to the mouth, treat diseases or lesions of the human teeth or jaws, or correct mal-positions thereof. The penalty for a violation of these provisions is a fine of not less than \$50.00 nor more than \$300.00, or confinement in gaol not more than six months. But nothing in this article shall be so construed as to interfere with the rights and privileges of resident physicians and surgeons, or with persons holding certificates duly issued to them prior to the passage of this Act; and dental students operating under the immediate supervisions of their instructors in dental infirmaries or dental schools chartered by the General Assembly of Maryland. Money received for examination and registration, the fee therefor being \$10.00, shall be used toward paying the expenses of the Board. All fines received are to be paid into the common school fund of the city or county in which conviction takes place.—*Journal of American Medical Association.*

HOW TO TREAT SENSITIVE DENTINE.

By DR. A. H. BUTTERFIELD, Stamford, N.Y.

Carefully selected, well shaped, small and sharp instruments, with a well-trained hand, are more than half the requirements of painless work. I regard a well-adapted instrument of small size of more importance than medication in sensitive dentine. Last winter I commenced using sulphuric acid, preparatory to filling roots, and observing its anæsthetic effect I tried it on sensitive dentine, with enough success to embolden me to further use it.

Now, with few exceptions, I am able, with its use, to operate on the most sensitive teeth without discomfort to the patient.

At my chair I have a syringe nozzle connected to a handle ; this is connected by a flexible pipe to a large cylinder (built like the air-chamber to an ordinary hot-air syringe), which is heated by a movable flame, so that the air can be heated from moderately warm to hot. Back of the cylinder, and in connection with it, is a chamber into which I put my medicament. This is controlled by a two-way cock ; a lever of this cock is within easy reach of the chair, and by operating this lever I can allow the air to pass through the medicament, or not, as I choose. This, in turn, is connected by a system of pipes, to the laboratory water motor, which operates an air-pump. By starting the water-motor I can force a continuous stream of hot air, medicated or not.

After adjusting the rubber-dam, or using some other means of preventing moisture from entering the cavity to be operated on, I turn on the air-blast and thoroughly dry the cavity, then I put in a drop of sulphuric acid. After waiting a moment I wipe out all surplus, and with the warm air-blast dry, after which, with small, sharp burs (or excavators) I can excavate without discomfort. After excavating I usually place a portion of unused soda to neutralize any acid that may be present, and proceed to fill with whatever material my judgment dictates.

The medicament used in the chamber spoken of is composed as follows :

Carbolic acid,	
Oil cloves,	
Oil cajeput	āā ʒj.
I, 2, 3, mixture	ʒj.

The use of which is to allay the discomfort sometimes caused by the blast of air on the dentine, and I find it very efficient.

Correspondence.

"THE INFIRMARY."

To the Editor of DOMINION DENTAL JOURNAL:

I noticed what you had to say about the opening of the College ; yet, there is a question which is much the better of discussion, and that is in regard to the Infirmary. Probably this does not affect the profession outside the city to any great extent, yet there are some of the city practitioners complaining very strongly of it. The principal complaint is that many patients are treated at the Infirmary who are abundantly able to pay the moderate charges

which are asked by the legitimate practitioner. As they say, the competition of the cheap-Jacks in the profession has forced the prices down to a point where they are not over remunerative, and if in addition to this many of those—and there are many in every practitioner's clientage—whose charges the dentist himself regulates according to their circumstances, if these also are taken away from them and attracted to the handsome parlors of the College, they will be in sore straits, indeed. Now, it must be remembered that the men who are most affected by this are not those who are doing the swell practice, but the poorer members of the profession who are striving to uphold the teachings on ethics and dignity of the distinguished leaders in dentistry, and are really the men upon whom the weight of upholding the dignity of the profession falls, because it is a very easy matter for a man to be dignified and highly ethical when he has rich patients and abundance of practice; but give the same man poor patients and few of them, then the hour of his trial comes, and it is in the defence of these men that I chiefly write, and they are the ones who are chiefly affected by the Infirmary.

Many methods have been proposed to relieve this condition of affairs, and one which I think might be satisfactorily worked, as the city is not of such a great size, is somewhat on the principle of the admittance of patients into the General Hospital. The usual procedure for the admittance of patients to the free ward in the Hospital is to have the certificate of a clergyman, which must be countersigned by the Medical Health Officer of the city. Now, if the city were divided up into districts and certain members of the profession appointed by the local association for every district, whose duty it would be to give a certificate to any patient that such person was entitled to free treatment at the Infirmary, and that no person be treated at the Infirmary without the presentation of such a certificate, much of the present difficulty would be overcome. This is thrown out merely as a suggestion; it is for those who are interested to discuss it.

PRACTITIONER.

[N.B.—The columns of the JOURNAL will be open, as always, to all who wish to discuss any questions affecting the profession.—
ED.]

Dominion Dental Journal

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VOL. VIII.]

NOVEMBER, 1896.

[No. 11

“ASSISTANTS” AGAIN.

In the August issue we referred editorially to the case of the unregistered assistants, who, by various ways, have got into the offices of some dentists, and who are as illegally in their positions as their employers would be if they had no license. Rapidly following this article, two licentiates of the Province of Quebec circulated for signatures a cunningly-worded petition to the Local Legislature, asking the right to hire assistants who may be graduates from any dental college without the usual requirements of the law. The sudden interest these parties took in the profession might have been easily suspected to be entirely selfish; but, as the signers assert, the facts were so misrepresented by the petitioners that the former were deceived. We are not in the habit of making personal allusion to ourselves; but, on this occasion, it happened that we found ourselves placed in a very embarrassing position. On the petition appeared eleven names of the staff of the Quebec College. Instead of suggesting the resignation of these gentlemen, and believing that they had been grossly deceived, we resigned our own position. The letter elsewhere will speak for itself. The matter is published here just to show the profession in Canada everywhere that they must constantly be on the *qui vive* for insidious attacks. It goes to show, too, the importance of unity in our ranks. We are sure some of the parties who signed the petition, and who did not remove their names, would not care to have them published in this journal or in the public press. Sometimes a good man gets into questionable company, and it happens that in this instance a few of the signers of the petition have been

eminently ethical, and if they have done nothing for the educational interests of the profession, they have at least observed a dignified neutrality. It is far wiser to do nothing than to do mischief, or help anyone else to do it.

THE TUG-OF-WAR.

In Ontario and Quebec to-day—especially in Toronto and Montreal—tugs-of-war are going on between the respectable and the disreputable ; between the practitioners who, if they advertise at all, do so ethically, and the selfish sneaks who want the earth. When men combine to do mischief, like men who combine to steal, they work earnestly. If the ethical men would but combine to expose such people, the latter would slink back into their natural obscurity. The trouble is that some men who have their practice secure think it best to let matters drift. Their position is purely selfish or thoughtless. We feel that, so far as journalistic efforts can avail, we have done our share, and have received ten times more abuse from the few blacklegs of the profession than we ever got commendation or support from the leaders. In war, we want loyalty and unselfishness. It strikes us that the blacklegs have as much, if not more, of it to themselves than those who condemn them.

A PRIZE-WINNER.

Our readers have doubtless noticed that one of the four prizes recently offered by the Palisade Manufacturing Co. for the best essay on "Antiseptics in Dentistry," was awarded to Dr. Martin, our Abstract Editor. Those who have been watching Dr. Martin's able work in connection with these abstracts will not be surprised that one who so ably condenses the ideas of others for the benefit of the profession should be so successful in expressing his own.

Australasian Journal of Pharmacy. Among our valuable exchanges we always receive with pleasure the *Australasian Journal of Pharmacy*, which is also the medium of communication for our professional brethren 6,500 miles from Canada. The growing commerce between Canada and Australasia, as well as our Imperial unity, would naturally warm us towards the great colonies of the Pacific ; but it is interesting to know that in Victoria, New South Wales, New Zealand, Queensland, South Australia, Tasmania and Western Australia, dentistry has kept pace with the progress elsewhere ; dental boards holding regular meetings for examinations and granting licenses.