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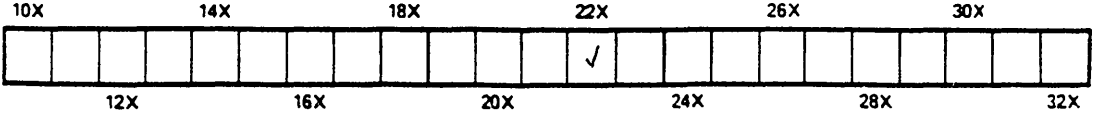

DOMINION

DENTAL JOURNAL.

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Dr. Chas. Frederic Ferdinand Trestler.

Dr. C. F. F. Trestler, aged 57 years, studied in the Montreal College as well as under special professors.

He first studied medicine under Dr. J. B. C. Trestler, his father, of whom more will be said later, and then under J. G. Bibaud, M.D., Professor of Anatomy in Victoria University. He was admitted to the practice of medicine in 1852. He followed this profession for a certain time, then went to New York to study dentistry under Professor Barlow. After two years of hard work, he came back to Montreal in 1857, where he has followed his profession ever since.

In 1857, Dentistry was in its infancy in Canada, and it was practised with very little ability and success, but it was from this date that Dr. Trestler with other clever confrères, gave a new impetus to it, by devoting himself particularly to this difficult specialty, by means of his perfect knowledge of anatomy and of physiology.

Dr. Trestler is the only Surgeon Dentist in the District of Montreal, who has been admitted to the practice of medicine. A fact worthy of notice is that although Dr. Trestler has administered chloroform and laughing gas thousands of times to his patients during the last thirty years, he has never had a single accident.

Dr Trestler was one of the founders of the Dental Association of Quebec.

He had for grandfather and father, men of whom M. Bibaud spoke in his "Historical Dictionary," in the following terms:

"Trestler (J. B. Curtis) M.D., of the Royal Society of Medicine of Edinburgh, honorary member of the Polytechnic Institute, is the son of J. J. Trestler, M.P. for the County of Vaudreuil,—one of the first Canadians who graduated at the School of Edinburgh, where he studied with the great Anatomist Stephenson, whom he succeeded as physician of the gentlemen of the Seminary.

"As Commissioner for the care of the Insane, he was the principal promoter of a special hospital or Asylum for this class of suffering humanity, and was its first Doctor before its removal to Beauport."

"There is a thesis dedicated to the Hon. M. E. G. Chartier, of Lotbiniere, his godfather."

During the Dental Convention of Americans and Canadians at Montreal, Dr. Trestler, the President, read the address of welcome.

Original Communications.

Dental Caries.

By Henry Sewell, M.R.C.S. and L.D.S. Eng.

The only remote or predisposing causes of caries of which the existence has been demonstrated, and of which the action is demonstrable, are those named in my papers, namely, inherent structural defects in enamel, vitiation of the buccal secretions, and crowding and irregularity of the teeth. The statement that enamel, through causes acting from within a tooth, can undergo a process of softening or deterioration—a kind of degeneration—rendering it less able to withstand attacks of caries, is pure hypothesis, resting on very insufficient foundation; and it is besides entirely unnecessary, all the phenomena being accounted for without its introduction. If any one really believed that enamel were capable of physiological, and therefore of pathological action, he would never fill a simple cavity of decay. Is it to be believed that a tissue so highly organized as the hypothesis in

question supposes, would passively tolerate the presence of a foreign body like a stopping wedged into its substance? One consideration like this is alone almost enough, to show the falsity of the views upon which you have asked my opinion: but there are many more equally cogent. The amount of organic matter in enamel is so minute as to be indistinguishable by the microscope, and we are justified in affirming that enamel is devoid of those tissue elements without which physiological action is impossible. An American observer states that he has stained enamel with chloride of gold, but if this observation were correct — as to which there are grave doubts — the organic matter must be in a state of almost inconceivable tenuity. You will see from my book that Mr. Charters White, one of the most distinguished living dental histologists, agrees with me that there is probably some error in the observation. But if it were true, can we imagine the passage to and fro of nutritive and effete material via the dental fibrils to the surface of the enamel; and can we imagine their assimilation and rejection by a quartz-like inert mass such as composes almost the entire bulk of enamel? And furthermore, if in some systemic states teeth were to undergo degeneration, owing to abstraction of their solid constituents through the vascular system, surely the morbid process would begin, if not always, at least very often in the surfaces nearest the vessels in the cementum and the dentine forming the walls of the pulp cavity? Does any one allege that he has observed such a phenomenon? and can any one produce a single specimen of enamel in process of softening or disintegration, displaying any appearance not equally visible in a carious dead tooth. Indeed, with the exception of pain, the single subjective symptom of caries, all the phenomena of this malady, whether as regards appearances visible to the naked eye or disclosed by the microscope, are to be observed not only in dead human teeth replaced in the mouth as artificial substitutes, but in blocks of ivory used for the same purpose. And the remote as well as direct causes of decay in these dead substances when worn in the mouth, are precisely the same as govern the onset of caries in living teeth — teeth with living pulps and living periosteum. Dead teeth and ivory blocks are under similar conditions neither more nor less liable to decay in the mouth than their neighbors implanted in the alveoli. Some few years ago, before the general use of vulcanite, artificial teeth were much more frequently constructed of gold plates with human teeth mounted upon them, and it was a fact of common observation — one which I was able fully to verify — that the durability of this kind of work varied much in different individuals and under changing circumstances in the same individual. Every dentist recognized that their durability depended very largely upon the quality of the teeth and blocks employed: if these were of the most solid structure

they lasted much longer than if inherently weak. Everyone recognized also that their durability depended, secondly, on the health and personal habits of the wearer. In a mouth habitually neglected and where the frames were allowed to remain for long periods coated with decomposing debris, the dead teeth and ivory were speedily softened and destroyed, whilst on the other hand where the mouth and teeth were kept scrupulously clean the beginning of decay was proportionately less frequent and its progress in like degree less rapid. A combination of bad health with neglect, giving rise to extreme vitiation of the buccal secretions, was with certainty accompanied by destruction of the artificial teeth. In short it is amply proved, that disturbances of the general health exercise the same indirect influence upon ivory blocks worn in the mouth, as upon living teeth, and the effects are traceable onwards through the same agencies, namely, putrefaction and fermentation of organic matter attended by formation of acids and development of micro-organisms in the vicinity and on the surfaces of the teeth. This is what happens in the cases of pregnancy about which you write. It is only a minority of women whose teeth suffer during that period, and in these there is almost invariably present dyspepsia with local conditions such as I have just referred to.

There has probably been more nonsense written on the subject of dental caries than on any other topic of the sort, and I have no doubt that the same kind of writing will go on in the United States, so long as dental societies and dental journals refrain from holding up pseudo-scientific pretenders to the ridicule they deserve. We feel a solidarity in this country with our professional brethren across the Atlantic, and we take deep interest in all that concerns the progress of the profession in the great Republic. But beyond that, I do not think that the production in America of sham scientific dental literature, whether in the form of papers or of text books and manuals for students will affect us injuriously. Our students are not likely to go astray in these matters. They are all obliged before commencing their special studies to pass an examination in general education, and having passed that examination they are not likely to pay much attention to authors, whose writings glaringly make manifest not only their ignorance of the meaning of the scientific terms which they glibly use, but their want of acquaintance with the rules of language and grammar, without which the simplest scientific proposition cannot be clearly expressed. It was partly to expose the worthlessness of the productions of writers of this class that I composed the papers to which you so kindly refer; and I am quite satisfied to know that they have not been altogether without effect in checking an evil from which we on this side of the Atlantic have been by no means exempt.

The Relation of the Teeth to the General Health.

By R. F. Sparks, D.D.S., Kingston, Ont.

Teeth are among the most peculiar and at the same time most important organs of the animal economy. Anatomists are at a loss where to place them. Some number them among the bones; others tell us that there are so many bones and so many teeth in the animal described.

They resemble bone in composition and structure more than they do any other tissue, but in many other respects they widely differ.

Teeth are of all sizes and shapes, from the villiform teeth of the perch, which are so numerous and closely aggregated as to resemble the plush of velvet, to the tusk of the elephant, which sometimes attains the length of 9 feet and a weight of 150 lbs., or to one of his grinders which has a grinding surface of from 36 to 45 square inches. Most mammalia have teeth formed for special uses incisors for cutting, canines for tearing, molars for grinding.

Perhaps in no other way is the supreme wisdom of the great Creator more beautifully displayed than in the formation of the teeth.

We see in herbivora, particularly those feeding upon the coarser kinds of herbage, as the elephant, horse, etc., etc., large grinders having plates of enamel running through the substance of the tooth. As the tooth is worn away by mastication, the dentine wearing faster than the enamel gives the tooth a very rough grinding surface. We see in the incisors of rodents, as rat, beaver, squirrel, etc., the enamel placed upon the front surface in two layers. The outer layer is more dense than the inner layer, and that is more dense than the dentine forming the body of the tooth.

By constant use these teeth are worn away: the body more rapidly than the inner layer of enamel and that in turn more rapidly than the outer plate, leaving the tooth shaped and edged like a chisel.

Carnivora have long canines in both jaws which serve the double purpose of firmly holding their prey, and for tearing flesh, while the molars instead of having flat, grinding surfaces are blade-like, are covered with enamel and work upon each other like scissors. This affords great power to masticate hard and tough food.

In the case of fish, where the chief object of the teeth is to prevent the escape of prey, they are generally sharp and slender and point backwards.

Mixed feeders, and under this head man appears, the mouth is provided with incisors, canines and molars. In this class the canines are not nearly so large as those of carnivora.

Teeth are generally attached to the jaws by means of a fang or fangs fitting a socket or sockets in the bone. In the case of fish, however, the teeth are attached to a hard, tough membrane; sometimes merely by an expansion of the base of the tooth; sometimes by means of ligaments.

Various indeed are the times and ways of development of teeth. Some animals come into life with teeth fully developed and erupted. The crocodile leaves the shell with as many teeth as it is possessed of at any period of its existence. It sheds and reproduces its teeth at intervals during its whole life, and each set is larger than the last in proportion to the increase in size of the body of the animal. Most animals, however, erupt their teeth after birth. Man, and some quadrumana, have a set of teeth to serve during infancy, which are replaced by a set greater in size and number than the former, occupying the increased size of the jaws. These are calculated to serve during the life of the animal.

Many other animals have the reproductive process going on in connection with the teeth throughout life. The majority of fish shed and reproduce their teeth almost constantly. The hard membrane covering the jaws, from which the teeth are developed, steadily moves forward, and, as each row reaches the edge they are discharged. The full number is kept up by new teeth being developed behind the last row. These in their turn ultimately take their place in the front in the onward march.

Reptiles shed and reproduce their teeth, but generally from bony sockets. Each individual tooth is replaced directly by a new one. The crocodile has sometimes a succession of teeth being developed in the same socket at the same time. The elephant sheds and renews its molars about six times during its long life. Other teeth are reproduced by a persistent pulp which is the matrix at the bottom of the socket from which the tooth was originally formed, and which continues to supply new tooth structure, pushing the tooth forward as the exposed end becomes worn away.

The incisors of rodents are thus provided: also the molars of most herbivora.

Man is not so provided. By the time a child has attained an age at which it partakes of food requiring mastication it has a set of teeth for the purpose. By the time the jaws are enlarged sufficiently to accommodate them the permanent teeth begin to appear; and when the child becomes developed into a man we find him with a well enamelled set of thirty-two teeth.

Whether or not the dentition of man has undergone any change since the time of our long-lived forefathers I am not prepared to say. I have only to deal with him as we find him in his present state. By the time he has become possessed of his permanent set of teeth one-fourth at least of

his allotted time is spent. This, with the extent to which he assists mastication by the manner in which he prepares his food, points to the fact that under ordinary circumstances they should serve his purpose during the remainder of his life. It is too frequently the case, however, that they do not. Rarely do we find a person attaining old age without having lost more or less teeth, and many have barely completed dentition before it is necessary to remove the entire set. Why should this be? Surely the general health must in some way, to some extent, be responsible.

How often we see a delicate child erupt a set of teeth of extremely poor quality. How often we have brought under our notice cases of temporary suspension of the process of calcification of the teeth, by an attack of measles, scarlet fever, or some other of the infantile diseases. In such cases we can see the stage of development at which normal calcification again took place, indicating a restoration to health of the child. Who has not seen a set of good teeth almost melt away after an attack of typhoid fever?

Not only does the state of the general health influence the condition of the teeth, but the condition of the teeth, to a very great extent, influences the general health.

Without taking into consideration teeth of special function as those used as weapons of defense and offense, those used to prevent the escape of prey, the gnawing teeth of rodents, or the special functions of teeth as organs of enunciation, objects of beauty, etc., we will consider the general office of the organs, taking those of man as being most closely connected with our subject.

They are the prime organs of mastication. In the process of digestion the food which is taken into the stomach undergoes chemical change, by which it is prepared for being converted into bone, muscle, nerve, etc.

The chemist, when he wishes to dissolve a solid substance, places it in a mortar, and with a pestle divides and subdivides it that the solvent may attack it upon all sides at once. This office is performed in the process of digestion by the teeth. If the food passes into the stomach without being thus finely divided, it requires more time and a greater quantity of gastric juice to dissolve it. If that condition continue for some time, the secreting organs become weakened and the food improperly digested as a consequence. Then follow the distressing symptoms of that bane of the present generation—dyspepsia. If this be not speedily remedied we have general debility, owing to an insufficient quantity of properly prepared material to supply the waste of tissue continually going on.

The amount of work which the teeth are calculated to do is enormous. The quantity of food a man eats at one meal does not seem much, but the

old Scotch saying applies here, "Mony a little mak a mickle." M. Sawyer, an eminent cook, enters into a calculation of how much food a man of seventy years has eaten since he was ten years old. He causes to pass before the mind's eye 30 oxen, 200 sheep, 100 calves, 200 lambs, 50 pigs, 1,200 fowls, 300 turkeys, 260 pigeons, 120 turbot, 140 salmon, 30,000 oysters, 2¾ tons of vegetables, 4½ tons of bread, 245 lbs of butter, 24,000 eggs, besides sweatmeats, fruit, etc. This all points to the importance of retaining the teeth as long as possible. How this may best be done is itself a subject for an exhaustive treatise, and does not come within the province of this paper.

But teeth may be retained too long. Their retention as well as their loss may prove a source of injury to the general health. A few cases in practice will serve to illustrate this point.

A young doctor on his way home from college called upon a lady friend and found her prostrate with general paralysis, for which she had for some time been unsuccessfully treated. Being a friend of the family, his opinion was asked. He incidentally had heard that bad teeth would cause it, and ventured to examine hers. He recommended the removal of an ulcerated one. This was submitted to, and upon his return to the house five hours after, his patient was up and prepared his tea for him.

A patient of mine called upon me complaining of a feeling of general debility, a heavy, numb feeling in the side, involuntary dropping of the arm to the side, sudden temporary prostration. Upon examination, the lower right molar was found to be sore to the touch. In fact she had already traced the source of trouble to that tooth and had come to have it extracted. The operation was performed, general health returned, and all symptoms of paralysis disappeared.

A lawyer of Peterborough had an obstinate discharge from one or both ears. Fruitless efforts were made to dry it up. One day while laughing heartily in the presence of a physician who had been studying the case, it was noticed by the physician that his teeth were in a very crowded condition. He recommended extraction of the wisdom teeth. It was submitted to, and the discharge ceased.

A young lady of Montreal suffered terrible agony for six months with neuralgia. She was treated by the most skillful physicians without benefit. Her mind began to weaken, and as insanity was in the family it was feared she would soon be a subject for the asylum. A dentist was consulted. He recommended the removal of a lower second molar to allow the eruption of a wisdom tooth. Relief and restoration almost immediately followed the operation.

A young lady called at my office to have upper jaw prepared for artificial

teeth I recommended the retention of the six anterior teeth, they being in very good condition. After some time she returned, stating that she suffered intense agony from toothache and facial neuralgia, and insisted upon the removal of the balance of upper teeth. I diagnosed osteo dentine as the cause of the trouble, and removed them. I split two of the teeth and found nodules of osteo-dentine more or less developed in both. The neuralgia was cured.

Many cases of blindness, deafness, necrosis of bone and other diseases foreign from the seat of trouble, have had their origin in the loss of teeth or their retention in a diseased or overcrowded condition. How to avert or correct these conditions would be solved to a great extent, if the public could be educated to place their families under the care of a dentist as they do under the care of a doctor; but unfortunately the dentist is only consulted after months of suffering, if at all, and methinks the grave might yield up many victims, who might have been spared to the world by a timely consultation of a competent dentist.

Aluminum as a base for Artificial Dentures.

By A. Hugh Hiers, D.D.S., Stratford.

Read before the Ontario Dental Society.

The dental profession has been looking for many years and is still looking for a new base upon which to construct artificial dentures. Gold is so expensive as to be beyond the reach of many patients. It is, moreover, somewhat difficult to manipulate, and under even the most favorable circumstances owing to the necessity of swaging it, only an approximate adaptation to the mouth can be obtained. Silver, while cheap enough to be within the reach of all, has the other disadvantage of gold, and besides tarnishes so readily in the presence of sulphur or sulphuretted hydrogen that it should rarely if ever be used for that purpose. Vulcanized India rubber has come to be the almost universal cheap base, and being cheap and requiring only a small amount of skill in its manipulation to produce fair results, the great majority of dentists appear to be perfectly satisfied with it and do not care to look for anything better. The better class of practitioners, however, have been constantly on the lookout for some material to take its place, possessing its advantages without its disadvantages.

Richardson in his *Mechanical Dentistry* says: "While there are undoubtedly many important uses to which vulcanized india rubber may be applied in the practical department of dentistry, and for which it would

be difficult to find an adequate substitute, yet there are accumulating evidences leading to the conclusion that its total abandonment as a base for artificial dentures, by intelligent and conscientious practitioners everywhere, is an event of the not far distant future."

Of the different substitutes for vulcanite which have been proposed and employed, none to my mind presents so many advantages and so few disadvantages as aluminum, particularly since by the aid of certain simple appliances it can be cast directly upon a plaster model. As it is only within the last few years that the properties of this wonderful metal have been studied and understood, a general description of it, together with an outline sketch of some of its possibilities, may not be out of place.

To begin with, then, aluminum is a silver-white metal which has a fine lustre, and is capable of receiving a bright polish. Although not found free in nature it is yet the most abundant of all metals. It is an essential constituent of more than 200 different minerals, and good compact clay is found upon analysis to contain from 10 to 20 per cent. of the pure metal. One of its most striking peculiarities is its lightness. Its specific gravity is 2.56, so that it is only about one-third as heavy as iron less than one-fourth as heavy as silver, and about one-eigth as heavy as gold. It is very malleable and very ductile. It possesses about the same hardness as silver but is more tenacious. It is one of the best conductors of heat and electricity known, being eight times a better conductor than iron, and almost equal to silver. It differs from silver, however, in resisting entirely the action of sulphur or sulphuretted hydrogen. It melts at a temperature slightly higher than the melting point of zinc and therefore within easy reach. It does not oxidize in air, and is unaffected by water at any temperature. It is unacted upon by vegetable acids, and even strong sulphuric acid is said not to attack it. In fact it is one of the most unalterable of the metals; but may be dissolved in hydrochloric acid. It is tasteless, odorless, and absolutely harmless, and no bad results can possibly follow its use in the mouth.

The abundance of this metal and the necessity for cheap methods of extracting it from its compounds, become evident to us when we consider that a cubic yard of clay weighs about 4000 lbs., and contains from 400 to 900 lbs. of pure aluminum. As $12.00 per lb. may be considered as the present commercial value of the metal, the total value of the aluminum contained in a single cubic yard of clay amounts to at least $5,000. It seems almost incredible, but it is a fact nevertheless, that society is willing to pay from $5,000 to $10,000 for the purified aluminum contained in a single cubic yard of ordinary clay! Is it any wonder then, in view of the prize which awaits the inventor of a cheap process of reducing aluminum, that nearly every chemist in the land has devoted more or less attention to the

matter, and that, as a recent writer puts it, "nearly everything that is possible has been tried and nearly everything that is impossible has been proposed."

The method of extracting the metal which has been employed in the past is known as Deville's method, and depends upon the action of metallic sodium upon a double chloride of aluminum and sodium. As sodium is an expensive metal, and as it requires more than three pounds of sodium to make a pound of aluminum, this method is necessarily very expensive. Electric methods are also being tried with some success, but what promises to be the most important of all is that of Dr. Netto, of Dresden. The Krupp iron works at Essen, in Germany, are introducing his processes, and state confidently that they will be able to supply ingots of this metal at a cost not much greater than that at which steel bars were produced forty or fifty years ago. If this is true, in view of its abundance and valuable properties, it is not unreasonable to expect to see in the near future this shining white metal taking the place of iron and steel. It is as tenacious as malleable, and as ductile when soft—as iron, and yet becomes almost as hard as steel when hammered and rolled. Then too, it will not corrode or disappear in rust like those metals. There seems to be no reason why it should not take the place of the iron work of passenger and freight cars, with a two-thirds reduction in weight, and a great saving in wear and tear of rails and track. The great ocean steamers if sheathed with this metal would not only be much lighter and have their tonnage proportionately increased, but their sides would be practically indestructible from the action of the elements. In the construction of bridges the fact of its possessing the maximum of tensile strength and indestructibility, combined with lightness and flexibility, gives it a decided advantage over any other material, while for electrical purposes especially in the case of suspended telegraph wires, all heavy metals will have to give way as its conducting capacity is nearly equal to copper. The experiment of using an alloy of aluminum in the manufacture of cannon has been tried with very satisfactory results, although its cost has heretofore prevented its general adoption. Once it becomes cheap, however,—and it is only a question of time when it will become so—on account of its being only one-third the weight of iron, the ease with which large guns can be handled will give it a decided advantage over steel, bronze, or any like metal. It was this fact and the hope of being able to use it in naval warfare which influenced the Emperor Napoleon III. to extend his patronage to Deville, while the latter was carrying on his experiments. It is interesting to note, too, in connection with the patronage of this emperor, that the first article ever manufactured of aluminum was a baby's rattle, which was intended for the unfortunate Prince Imperial, who afterward lost his life in Zululand.

As the methods for its extraction become more perfect and its cheapness increased, may we not expect to see houses even built of hollow moulded bricks of aluminum, instead of bricks of clay, and these houses filled with furniture carved and moulded from this beautiful and indestructible metal? The world has had its stone age, its bronze age, its iron age, and its steel age. Is it not possible that it may now be entering a new aluminum age, which will be as much in advance of the present as the bronze was in advance of the stone?

The lightness, conductivity, malleability, and other valuable properties of this remarkable metal would seem to make it a very desirable base upon which to construct artificial dentures, and it has been used for that purpose with more or less success. Swaged aluminum plates have been constructed, but the difficulty of finding a suitable solder has never been entirely overcome. Probably the best solder for this purpose is Dr. Starr's, composed of seven parts aluminum to one of pure tin. Another alloy used for soldering aluminum is composed of 90 parts tin, 5 parts bismuth, and 5 of aluminum. Thus far, however, the attempts made to attach teeth to swaged aluminum plates by means of solder have been far from satisfactory. Vulcanite attachments have yielded better results, and very desirable dentures can be constructed in that way. It is found that rubber vulcanized in contact with pure aluminum becomes intimately adherent to it, and as the aluminum plate on account of its lightness can be made two or three times as thick as a gold plate, very strong dentures can be constructed in that way. Another and still more promising form of aluminum work is that known as "cast aluminum." One of the first and most successful experimenters in this direction was Dr. Bean, of Baltimore, who patented a very ingenious process for casting aluminum plates. The process, however, was difficult and somewhat uncertain in its results. The chief difficulties to be overcome in the casting of aluminum depend upon its lightness, and its lack of fluidity when melted. Dr. Bean attempted to overcome these by means of a tall column of melted metal, which, acting by its own weight, forced the metal in the flask into all the irregularities of the mould. Unfortunately while ascending Mt. Blanc in 1870, this experimenter was killed by an avalanche and his method never came into general use.

Dr. Carroll, of Meadville, Pa., has invented a process for casting aluminum which in the hands of skilful mechanics has been eminently successful. The sluggishness of the metal when melted is overcome by pneumatic pressure, which forces it into the finest crevices of the mould. The outfit made use of by him consists of an automatic gas furnace, a specially constructed flask, and a pneumatic plumbago crucible, with accessory apparatus. In casting, the flask containing the mould is heated in the

furnace along with the crucible containing the metal, and when the metal is melted, the crucible is placed in position over the flask, and the melted aluminum is forced into the mould by pneumatic pressure from a rubber bulb. By this means an almost exact reproduction of the wax base-plate can be obtained, and as the aluminum files easily, it can be trimmed to any shape and polished almost as readily as a rubber plate.

Just to what extent these cast aluminum plates are likely to take the place of vulcanite in the near future I am not prepared to say, but I believe that when the advantages of aluminum as a base and the simplicity of the process come to be recognized, the use of vulcanite as a base for artificial dentures will be abandoned by a large number of dentists. I am led to believe this because aluminum possesses not only the ordinary advantages of a metallic over a plastic base, but has several important advantages peculiar to itself. Among the most important are :-

1. Exceeding lightness - a full upper denture weighing usually from ¼ to ½ oz.
2. Perfect adaptation being cast directly upon the model of the mouth.
3. An unusual degree of conductivity.
4. Perfect freedom from oxidation.
5. Compatibility with the tissues of the mouth.
6. Great stiffness combined with strength and durability.
7. Simplicity of the process of manufacture.

Dentistry in Ontario of Age.*

By J. B. Willmott, D.D.S., L.D.S., Toronto.

"When I was a child I spake as a child, I understood as a child, I thought as a child; but when I became a man I put away childish things."- Paul.

"Coming of age" is an event in the life of a young man of such importance as to be worthy of the interest which it usually excites.

To the individual it marks the period when in the eye of the law he ceases to be an infant and a ward and is permitted to transact the most important business affairs of life on his own account. In other words he becomes his own master. With these privileges come new responsibilities. Assuming the duties of manhood, it becomes him to put away the frivolities, not to say the follies, of youth, and to take more serious views of life; to set himself seriously and earnestly to work out life's problems and to fulfil its highest purposes, following out the example of the great Apostle,

* Read before the Annual Meeting of the Dental Society of Ontario, June 27, 1889.

who, when he was a child "spake as a child and thought as a child, but when he became a man he put away childish things." Other things besides boys pass through this process of incubation, birth, development, maturity. All great enterprises, all important inventions, all valuable manufactures, all the learned professions have this common history. A germ in the mind of an individual; an embryo assuming definite form, shape, substance; a birth into activity, and then the doubtful, uncertain, anxious, experimental time of infancy going on to the callow, imperfect period of youth, by slow degrees developing strength and completeness and finally manhood. The profession of Dentistry in Ontario, with such a history behind it, attained its majority on the 4th day of March in this year of grace, 1889.

The period of incubation of dentistry in this Province dates back into the dim past, far beyond the recollection of the writer, whose earliest memory of it is as an embryo, manifesting considerable vigor and rapidly pressing toward the condition when it would be ready to enter upon a new sphere of action. Early in the year 1867 a number of its most earnest friends, hoping that the time for its accouchment was drawing near, set about making the necessary arrangements. These occupied more than a year, and then the charge of the interesting event was committed to the Ontario Legislature, with Dr. Boulter, of Hastings, as chief physician, with a staff of judiciously selected assistants, and a larger staff of not so judicious volunteer nurses.

The labor was protracted through several weeks, and the history, as narrated by one of the midwives, is one of alternate hope and despair. The difficulty arose entirely from the officious interference of the volunteer nurses, who each one insisted that his advice and no other should be followed. The doctor was almost distracted, the friends of the unborn infant in despair, when on the last day of the session a safe delivery was effected.

On the following day, March 4th, 1868, amid the blaring of brass instruments, the beating of drums and salvos of artillery, the Lieut.-Governor, Sir Wm. Howland, presented the new born corporate infant to the public, bestowing upon it the high-sounding but "truly loil" cognomen of the Royal College of Dental Surgeons of Ontario.

In the twenty-one years that has elapsed has dentistry as a profession grown from infancy to manhood? Has it ceased to think as a child, to speak as a child? As we look at dentistry as it is to-day, while we joyfully recognize growth and development and a good measure of maturity in many directions, in some we are obliged to confess that not yet are all "childish things put away." Of those things which should have disap-

peared with the youthful days of our profession we note the petty jealousies of professional brethren, which still so widely exist. The almost entire absence of any *esprit de corps* which would make the interest of one the interest of all, and the interest of all the interest of each one. How many of us are proud that we are dentists? How continually do we hear dentists belittling their calling and lamenting the fate that fixed their occupation? We have not yet cultivated that respect and enthusiasm for our profession which will force the public also to respect it. We note again an absence of such professional etiquette as would indicate full professional maturity. There is still too much disposition to misrepresent and take advantage of each other. Perhaps no class of men do meaner things and say meaner things of each other than dentists. But we have not space to particularize. These things ought not so to be. Possibly the most glaring, because the most public, evidence of lingering "childishness" is in the manner and method in which we appeal to the public for patronage. Probably in some respects a comparison of the advertisements of dentists to-day with those of twenty-one years ago will show some improvement, but in many respects there is unmistakably a retrogression.

Pasing by the grosser forms of quack advertising, which disgust every sense of professional propriety and humiliate every honorable practitioner; simply glancing at the atrocity not long ago committed in a growing town by two competing champions of the forceps who published week by week in the public papers the number of teeth extracted as indicating the prosperous state of their practice; and not even looking for very shame's sake at the 8 x 12 feet boards which stand at every public road entrance to the city of Toronto, which in fourteen inch shaded letters set forth the name and address of ——, who for a very small consideration makes "sets of teeth" and does other "dental jobs": I wish especially to direct attention to the tendency to present to the public as a claim to patronage, not skill or experience or special aptitude, but simply *cheapness*. Only cheapness and nothing more.

Law has its "shysters," medicine its "quacks," divinity its "impostors," but it has remained for dentistry to cheapen itself and depreciate the value of its services to the public.

Fancy a lawyer advertising "best advice only $9, poorer quality $5," or a physician, "best prescriptions only 50 cents, common ones 15 cents; or a clergymen, "best sermons only $5.00 each, and if two be taken on a Sabbath no extra charge made for attending Sunday School in the afternoon." And yet our daily and weekly papers contain scores of this class of dental advertisements, to the utter disgust of professional and intelligent men and women. Why will dentists pursue this course and shut them

selves out of the most desirable class of practice? Surely it is time to put away from us this evidence of "callow youth."

There is, however, a brighter side to the picture. We have accomplished much which may be accepted as evidence of respectable and vigorous growth and at least an approach to maturity. In 1868 dentistry in this Province was chaos. No preliminary examination, no required pupilage, no standard for admission to practice, no provision for education in dentistry. Every one doing what was right in his own eyes. Not by any revolutionary changes have we reached our present position. By a steady evolution, well considering every step and taking none backwards, we have reached a status of which every dentist may well be proud.

The profession incorporated by statute the entrance to it in the hands of a Board selected by ourselves and free to make the standard all that they may consider wise, untrammelled by any unhealthy and depressing competition from without: a matriculation examination higher and a pupilage longer than any College, State or Province on the continent, excepting possibly the Province of Quebec, and a standard of final examination which is equal to any and probably more rigidly enforced than any Dental College in America, mainly from the fact that the examination is independent of the teaching Faculty and conducted by men who have no financial interest in passing few or many of the candidates. With a limited constituency and consequently a comparatively small number of students, and no financial resources beyond the lecture and examination fees, we have organized and maintained a Dental College of which we will not now say more than that in comparison with other Dental Colleges no Ontario dentist need be ashamed.

In this process of growth, dentistry, not in the individual but in the aggregate, has occasionally been a little bumptious.

In its earlier years it was very anxious for some kind of outside recognition that might add to its respectability or its importance.

About the year 1874 this bumptiousness assumed the form of a burning desire to obtain the privilege of writing ourselves doctors. In turn, application, formal or informal, was made to Parliament and to each Ontario University, with one exception, for such recognition as would enable our students to obtain the degree of D.D.S. In turn these applications were officially or unofficially refused or declined. The dental authorities took this to be a suggestion to set to work to make ourselves of sufficient importance, and then we would secure recognition. Acting on the hint, the Dental School was organized, the curriculum raised, annual dinners held, the press to some extent utilized, and within the past year, at our request, the University of Toronto has affiliated our College, established

an examination in Dentistry—accepting our curriculum—and has held the first examination and conferred the degree of D.D.S. on twenty-five of our licentiates. From the press we learn that in the governing body of another University, without any request of ours, notice has been given of the introduction of a statute to establish a curriculum in dentistry leading up to a degree. It is a somewhat interesting and fitting coincidence that on the day Ontario Dentistry attained its majority, March 4th, 1889, twenty-five dentists and dental students paid in their fees and filed their applications for admission to the first examination ever held by a British University for a Doctor's Degree in Dental Surgery.

And now as we look out into the future from our present vantage ground, what are the duties of the hour?

1. To cultivate an *esprit de corps* in the profession which shall bind us together in earnest efforts to elevate and advance it.

2. To eliminate all unprofessional practices and especially those which come before the eye of the public.

3. To take pride in our calling, cultivate an enthusiasm for our work which will help us to render better service to our patrons.

4. To be satisfied to be dentists, and endeavor to make dentistry worthy of our highest ambition and most earnest efforts after excellence.

For myself I have no ambition to be ranked as a medical man practising a specialty. In my judgment dentistry cannot properly be considered as a specialty of medicine. It is true that it is a branch of the healing art, but it has not grown out of medicine; it forms no part of the curriculum of medical schools; it has received no aid from medicine as a profession, though individual physicians have rendered it great service.

Dentistry has developed and grown up outside of medicine and independent of it. It has built its own colleges. It has its own text books, its own literature, its own periodicals, its own societies and associations, and its own appliances. In its genesis and history no closer relationship can be traced than as an adjunct of medicine it covers an important field in the healing art for which medicine had failed to make provision.

Far distant be the day when our societies, our associations, our clinics, shall be abandoned that we may form a section in a medical association. We have done well in the past and may do better in the future. We have made great and rapid progress in the past, and if true and diligent the future holds in store for us still greater advances.

Let us be satisfied to be dentists, and at the same time full of ambition to be skilful dentists, intelligent dentists, scientific dentists, honorable dentists, and the public will not be slow to accord to us all proper respect and all needful social recognition.

Celluloid in Mechanical Dentistry. Is it to be Recommended?

BY S. GLOBENSKY, L.D.S., MONTREAL.

The limited time the committee have given me for this paper must necessarily force me to omit many points in the discussion, but I will do my best to be brief and practical.

Had it not been for the strict enforcement of the rubber patents of the Goodyear Rubber Company, in 1869, I am disposed to believe Celluloid would never have obtained the notoriety it enjoyed for a long time under the old principle of manipulation; but recent improvements have perhaps given it a more favourable consideration, when properly made. It is one of the cheapest materials used, and if not properly made, it not only contracts after being moulded into shape, but it absorbs the secretions.

What is Celluloid? It is derived from Cellulose. What is Cellulose? It is a woody fibre of plants, and has illustrations in the cotton wool used in our offices. But to make the Celluloid of dentistry the Cellulose of hemp is preferred, as it is stronger than that of linen or cotton wool. It is first converted into paper by paper machines. It is then put into a mixture of nitric and sulphuric acids after washing. We then have the gum, cotton or pyroline base used in mechanical dentistry fifteen years ago. It is explosive and takes fire at 300 degrees of Fahrenheit. It is now reduced to a pulp. A mixture is then made as follows:

Pyroxline Pulp, 100 parts.

Camphor, 40 parts.

Oxide of Zinc, 2 parts.

Vermillon, 0.6, with alcohol to soften the camphor.

This mass is now put under a hydraulic pressure of 2,000 pounds to the square inch. The cylinder in which it is pressed has a hole in the side near the bottom, and the pressure causes the Celluloid to ooze out. It is then cut in proper sized pieces and moulded by pressure and heat to the upper and lower shapes such as I exhibit. It takes two months to season these blanks, as they are called, in a room of á temperature of 160° Fahrenheit.

A good deal of humbug has been used to recommend this material to an innocent public. For instance, I have been told by patients that they were advised to have this, and warned not to have red vulcanite because of the mercury in it. They were not told that this pretty material, even transparent as it is, also contains vermillon, which is a form of mercury. Ex

perience teaches us that the alarm against the material on this account is a false alarm, and if any sponginess of gums or soreness occurs in well prepared plates, it is due to non-conductibility, to want of cleanliness. Vermillon is inert as mercuric sulphide. Neither water, alcohol, the alkaloids, or the mineral acids have any action upon it. To decompose it, and to set metallic mercury free, a temperature of 600° Fahrenheit is required, and only strong nitro-hydrochloric acid will convert it into corrosive sublimate. Sometimes, however, a lively imagination will perform miracles with mercury in vulcanite, celluloid and amalgam, where the most skilful chemistry will completely fail. The advantages of Celluloid may be dismissed as follows: The colour is more agreeable than vulcanite. It is transparent. It is lighter than rubber. Even the camphor taste disappears if the plate has been properly prepared in a dry chamber with a high and uniform heat and no sudden change. The temperature should be 315° or 320° in the "new-mode" heater. Its disadvantages are: That without careful manipulation misfits are frequent. It is often porous. It is not only easily warped when being made, but by extreme heat sometimes of coffee and tea. The teeth do not hold as well as vulcanite to the pins. It is no use for gum teeth, and the material is a very poor imitation of the beautiful porcelain gums. Frequently the camphor taste is so objectionable that you must immerse the plate in alcohol 95° over proof for four days before inserting it. It is cheaper to make than vulcanite, and yet there is such fraud practised upon the public by men whose only idea in the profession is to make money, that very high fees are charged for what is often very inferior work.

I have tried to confine these remarks to practical points, without any attempt to elaborate. The duty of this association is to protect the public from imposture, and it is well to pronounce opinion as to whether or not it is true that Celluloid is the best material for mechanical dentistry. For my part, I would be ashamed to say so.

Dental Education.

By S. J. Andres, L. D. S., Montreal.

In looking back some years, the time was, when all that was required of a man to make him a dentist, was a certain amount of ingenuity, and deftness with tools; but that time is among the things that were, and dentistry is no longer looked upon as a trade, but a profession, taking high rank with the learned professions of the present day, and will ere long be standing at the front, side by side with that of the medical profession itself. To

attain that degree of high standing, it will require hard work on the part of the student, and a high grade of literary and scientific education.

There is no pursuit in life which does not require a certain amount of education and intellectual training. It is as equally necessary to the humblest artisan as to the most dignified profession. Any lack of it which the calling demands is at once discovered and brings with it regret and shame. The artisan who works in metal, wood or stone, and prepares it for the uses of civilization, in order to succeed in business, must possess it in a certain, but perhaps limited, degree; while the professional man who wishes to rise to eminence, who has the writings of great authors to "read, mark, learn and inwardly digest," to meet emergencies often of the most trying character, requiring sound judgment. To give opinions which must stand the severe strain of public criticism, requires an education of the highest order.

To-day no one will doubt the statement that the man whose mind has been thoroughly trained in the attainment of a literary, scientific and classical education, is much better prepared to grasp and search out the hidden mysteries of professional lore, than one who has never had those advantages The mind of an uneducated man is not able to cope with the facts and principles of science, and garner them up into the storehouse of his memory, "to bring forth fruit in good season," as seed sown upon fertile ground.

To fully recognize and appreciate relations that the teeth bear to the various organs of the body, it is necessary that the student should be familiar with its entire organism. Once it was thought that a perfect knowledge of the anatomy of the head was all that a dentist required in the practice of his profession,and there are many who even to-day are in practice holding the same opinion. That he should be familiar with that part of the body there can be no doubt, but that he should confine his knowledge to that portion of the human economy, and to it alone, is to be far behind in the progressive teachings of the dental schools and literature of the present day. It does not matter how thoroughly well up a man may be in the anatomy of the head, its bones and muscles, its blood vessels and nerves, which are distributed to the teeth, and as well as the microscopical structures of these organs, if the nervous system with its reflex action, the circulatory apparatus with its life giving fluid, also the various other organs with their several functions, are unknown to him. It will be impossible for him to understand how the teeth can be the cause of cerebral and other sympathetic derangements that children are subject to during dentition, as well as the odontalgia of the parturient female, or the constitutional effects of carious teeth and vitiated oral secretions. Having been thoroughly trained in the

knowledge of the whole human system, and qualified to diagnose with ease each case as it comes before him, he is able by judicious advice, proper remedies and well-ordered operations to give instant relief to his patient, whether child or adult; and when consulted by the intelligent medical practitioner (where he has reason to believe that the dental organs are in some way connected with the disease he is treating), the dentist is qualified by his more familiar knowledge of their abnormal conditions, not only to be able to assist him in making his diagnosis, but brings credit to his profession and commands the respect of the physician by the knowledge shown.

The dental profession of to-day are largely responsible for the status of the profession of the future. If we are to be classed in the rank and file of those men who are called, to use a vulgar expression—"quacks," or "tooth carpenters" and content to stay there, then we must fall to the level of the mechanic, and only require the education necessary for that purpose, but if we are to stand side by side with the members of the scientific and honorable profession of medicine, who are already willing to extend the right hand of fellowship to the men of our profession who will become entitled to it by being equal to them in educational ability and attainments, for that purpose, we require education of the highest order.

The highest object of the dental profession of to-day should be to elevate it to that high standard of excellence in education and respectability, which shall merit the recognition which we claim from our brethren of the medical profession.

I venture to make the assertion, that there is not one of the scientific professions of to-day that have made greater and more rapid strides in its advancement, than that of our own; that we shall not long be confined to the same narrow field of operations to which we have been in the past.

There are facial and oral diseases which properly come under the treatment of the dentist, many of them demanding the highest surgical skill and manipulation. And we have men in our profession who are equal to any occasion demanded of them. But there is room for more, and when the profession is supplied with the men qualified for the field that is open to them, then will they be called upon more generally to treat such cases.

I do not wish to be understood to decry the work of good men and true, of the past; for many of them have always been ahead of their times. Men who have given their time and energy as well as their money, to organize schools of dentistry, to give us dental literature of a high order, which is yearly improving and has been the means of putting our practice into its present scientific and practical status, have given to us a wider range of thought, and far better class of operations since their operations began and these schools have been organized.

Complaint has been frequently made (and perhaps not without some show of reason) that young men are graduated and sent out into the world who do not really possess the qualifications these institutions have claimed as their standard, and diplomas have been granted to persons wholly unfit to receive them. Are the colleges the only delinquents? Are not some of those who consider themselves members of the profession responsible for having sent out from their offices those who were equally unworthy of the title of dentist? Do they see to it that the parties they receive into their offices as students are possessed with brain sufficient to acquire the necessary educational qualifications, coupled with determined perseverance, to overcome the difficulties it requires to become a good practitioner? Are we both in precept and example without sin? Then let him that is without sin cast the first stone; at the same time remember that people who live in glass houses should not throw stones. Then let us cease from grumbling at the colleges: at this or that system of education, but remembering our own sins of omission, as well as theirs of commission, resolve that in the future any person desiring to enter the ranks of our profession shall possess the same qualifications in educational ability and requirements as are demanded by the best medical schools of our country. Instead of cavilling at the discrepancies of our schools, remember that we owe to them much praise for the good they have done. And if we desire them to be more exacting as to the qualifications of their graduates, mentally and morally, let us see to it that we be more exacting in our demands in the same direction of those we accept as students, and encourage by every way possible every legitimate means that can be used to improve and elevate the status of our membership.

Knowledge is power and to its possessor it gives intellectuality and efficiency; these attributes combined and used in the right direction will command respect in all lands and among all people, and every avocation where they are brought into action must assuredly rise in public esteem. We should not accept as students either in dental schools or in our offices any person who is not so qualified and whose mind is not fitted by education and a high sense of honor for the profession which he proposes to enter, so that he will guard well its interests, and with a faithful and honorable devotion to the calling he has chosen, do all that a true heart and an active hand can, to increase its efficiency and reputation.

It seems to be a current opinion that the profession dignifies the man. It is just the reverse. It is the man who dignifies it by shedding upon it the lustre of a well-trained and cultivated intellect; a well balanced mind and an unsullied character which the public will recognize and delight to honor: and I am glad that our profession is rapidly being filled with such

men, and that legislation is being used with good effect to that end; that our legislators are recognizing the need of good laws well administered to carry on the good work and protect us from the direful influence of empiricism, and the public from imposition.

You have on this the 21st anniversary of this association organized an Odontological Society, which, if laid upon a solid foundation and well built upon, will be to the young men of this province who seek to enter the profession a means of incalculable benefit to them as a stimulant to help them on to the goal of perfection.

With a grand future before us, assisted by the laws we have succeeded in placing on our records as the corner stone of our society, let every licentiate feel that he is in honor bound to see that the laws shall be well administered and respected, and endeavor to build a structure upon them that shall be a monument of glory in the years that will come in memory of those who have helped to lay it; that shall shine out upon the pathway of the men who come after, guiding them toward and in the path of wisdom—as the beacon light on the rock-bound ocean shore guides the storm-tossed mariner to a peaceful harbor; writing on our banner in letters of gold the word "Excelsior."

Professional Fees in Quebec Province.

BY DR. B. S. STACKHOUSE, HULL, QUEBEC.

It seems to me that this is the place where we should discuss our material interests as business men, as well as the interests of our patients. We meet here to-day to learn from each other. What for? In order that we may apply theoretical knowledge and practical ideas for the direct benefit of our patients. It is true we personally profit by all improvements in our profession, but it is mostly a profit of rest not of pocket. It costs a man twenty times more to equip an office to-day than it did twenty years ago. The cost of living, rents, taxes, dental material, is very much increased, and yet in many branches of our profession we receive no higher fees than thirty or forty years ago, and mechanical dentistry has been degraded by the public demand for the standard of superior gold plates and continuous gum worth at $60 and $80 a single set, to vulcanite and celluloid, all the way from the cheap and nasty manufactures of $10 to $20, $25 and $30. Thirty years ago a dentist got along with a hundred dollars worth of instruments, while to-day many feel they must have from one to

two thousand worth. Then the best dental chair cost $75; to-day they cost over $200. Scores of little appliances and ingenious inventions are used and used up, to decrease pain, and to make the dental chair less horrible.

We do better and easier for ladies, and those who have the least of all courage in our chairs—our own sex. Even to childhood, the dentist is not now the daily dread and nightly ghost. In the surgical and therapeutical departments, in our materia medica, in our operative, we often perform miracles on dead bones, and do operations that would make retired dentists of ten years ago stare with amazement.

Yet for all this, there is no escaping the personal and individual drain on our nervous force: the exhausting strain of position: the eye strain: the brain and back strain.

Is not this worthy of pecuniary reward much better than we receive? Is it not true that most of our most successful men in city and country have made most of what money they possess by devotion to objects outside of their profession, and that success in obtaining a large or influential practice, does not mean that pecuniary success which favours often professional success? Not long ago a young medical man told me that he believed one of the first duties a young medical man owed to himself and to society was to marry money, without much regard to the girl, because a certain portion of the public in every place was captivated by the show that money enabled a man to make, and that it was not a man's education in his profession, it was not his reputation as a student, or his reputation as a success among his confreres, but it was his ability to make a show that caught public attention. I think this is not always, though it is often, true. However, my purpose in this paper is to plead, first, for a reasonable increase of our fees; second, for a division of fees into 1st and 2nd classes; third, for invariable charge for consultations; fourth, for a strictly cash basis of doing business. Cash at once for all mechanical work, and the rendering of accounts the moment operations are completed. Everywhere in the United States, everywhere in Ontario, cash is insisted upon as a principle, from which the departures are exceptional, and I believe that there is no place in the whole world of dentistry where quacks are so much over-paid, and skilled men so badly paid, as in this Province. If the public ever complains that the dentist is not a dentist only, and does not give all his energies to his profession, it is the fault directly of the public. Yet there are people who say it is the fault of the dentist in not raising his fees. Let us try the experiment and find out where the fault lies.

Dental Dots Distilled.

By D. V. Bracock, L.D.S., Brockville.

[The question of educating the public on matters concerning the teeth is very simple. The public must be given information. Who should give it to them if not the dentist? How will he give it to them so that they will read and remember it? The following is one method, which might be adopted by any one, and distributed to patients in the office. ED.]

Nature has laid out all her art in beautifying the face; she has touched it with vermillion, planted in it a double row of ivory, made it the seat of smiles and blushes, lighted it up and enlivened it with the brightness of the eyes, hung it on each side with curious organs of sense, given it airs and graces that cannot be described, and surrounded it with such a flowing shade of hair, as sets all its beauties in the most agreeable light.

THE DENTAL PROFESSION. "It has established and prolonged the reign of beauty; it has added to the charms of social intercourse, and lent perfection to the accents of eloquence: it has taken from old age its most unwelcome feature, and lengthened enjoyable human life far beyond the limit of the years when the toothless and purblind patriarch might well exclaim 'I have no pleasure in them' "—*Oliver Wendell Holmes.*

TRIALS.—Some of the most trying experiences in a dentist's life are caused by people who expect a great deal more than it is possible to do. One of these is that many people expect to get a set of artificial teeth, a few weeks after extraction, that will do as good service as their natural teeth and give no more trouble in use. They are always disappointed and hold the dentist responsible for the failure. The sooner it is understood that no artificial substitute for any of nature's organs can do the service required of it as well as the natural organ it replaces, the sooner people—many people at least—will cease to worry the dentist with the troubles they experience in wearing artificial teeth. No one expects a wooden leg will run as fast as a natural one, or that a glass eye will see as well as the organ it replaces, but many people have the idea that a set of artificial teeth will do better service than the natural organs ever did. The wearing of these substitutes is a matter of patience and persistence. Make up your mind that the loss of your own teeth is more or less of a misfortune, and that replacing them with artificial ones is only the best that the dental art can do. In appearance and arrangement, the artificial are often superior to the natural, but for use in eating, etc., nothing but patience and perseverance will enable

you to get good service from them. This is especially true in mouths that are difficult to fit.

WRONG.—The sooner people understand that the loss of natural teeth is a misfortune to be avoided, the better it will be for their health and comfort in after years. The too prevalent idea that artificial teeth are as good as the natural ones, cannot be corrected too soon. It is one of the results of false teaching for which a certain class of dentists is responsible. The necessary loss of the natural teeth should be looked upon with regret instead of welcomed, or encouraged by wilful neglect, as is the case with thousands of people who deliberately plan the loss of the teeth that they may have artificial substitutes. It is a most reprehensible practice, and should be corrected.

Neglect is the mortal enemy of the teeth.

Care of the teeth is one mark of good breeding.

"Crippled for life"—any person who has lost a tooth.

No personal adornment can compensate for ugly looking teeth.

Knowledge is the only remedy for evils from which we suffer.

Toothache never makes a postponement on account of the weather.

The most beautiful face is marred by decayed and unsightly teeth.

The value of sound teeth as an aid to good health can never be over estimated.

"Cheap" dentistry is usually most expensive, physically as well as financially.

The competent dentist is as much of a blessing to a community as the physician.

The teeth deserve the best care we can give them, both personal and professional.

Perfect health can not long be retained with decayed teeth, or an unhealthy mouth.

If health and comfort are worth anything, a perfect set of teeth is a priceless treasure.

To him who has a dirty unsightly set of teeth Nature is ever calling, "Unclean! Unclean!"

Operations on the teeth are not generally painful, except as a punishment for procrastination,

The mouth is the portal of life; through it must pass all that sustains life in the form of nourishment.

There is nothing of equal importance to the race that receives so little care and attention as the teeth.

There is nothing that counts for so much in their preservation as thorough cleanliness of the teeth.

"Tumors, cancers," etc., in the mouth, are usually simple cases in the hands of a competent dentist.

Good health, comfort and happiness of life are often marred or ruined by neglected teeth and a diseased mouth.

A decaying tooth, like pent-up fire in an unexpected place, requires only a little fanning to create a panic.

Artificial crowns set on sound roots make as artistic and serviceable an operation as a dentist can perform.

Begin the use of tooth powders as early as a tooth brush can be properly handled, and keep it up through life.

The highest aim of the physician is to prolong life: the highest aim of the dentist should be to preserve the teeth.

Nine-tenths of the foolish dread of dental operations dissappears when in the hands of a careful and competent dentist.

Too vigorous brushing of the teeth, and especially with a stiff brush, may result in irritation and bleeding of the gums.

The utter indifference manifested by the great majority of people regarding the value of their teeth is almost bewildering.

There is no operation in dentistry more pleasing and satisfactory than that of placing artificial crowns on healthy roots.

An aching tooth is nature's emphatic protest against violated law, and the penalty falls without fail on the guilty victim.

There is nothing that adds so much to the charms of any face as a clean mouth and a set of sound, natural teeth, well cared for.

The dentist who has no higher ambition than to "kill nerves," "extract teeth" and "make plates" is hardly worthy the name.

"Gold cannot be purchased at the price of lead, nor can you obtain professional skill without paying decent professional fees."

One price of sound teeth is perfect cleanliness of the teeth and mouth. It is a price which common decency would seem to demand.

Children's teeth require more attention than those of adults, just as the tender shoots require more attention than the full grown tree.

Average durability of plates: Rubber 6 years, celluloid 4, gold 16 years. Continuous gum and porcelain work is the most durable.

Never part with a tooth that can be made serviceable any more than you would permit a surgeon to amputate a finger that has a felon on it.

A dentist should be sympathetic by nature, but he must never let his sympathy influence his judgment even if pain is necessarily inflicted.

Consult a competent dentist at least twice a year, and have any needed work done. "A stitch in time" theory applies to the care of the teeth.

The time is coming when the continued neglect of the teeth will be

looked upon as a lack of good breeding. It should be so now. The neglect of a personal care of the teeth should be ranked with a similar neglect as to the cleanliness of the face and hands. If one must be neglected it were better that the hands should suffer.

Modern dentistry is capable of working wonders in the correction or regulation of crowded, irregular teeth.

Diseased gums are a prolific cause of loosening of the teeth, as well as of a foul breath. Proper treatment will diminish or remove the trouble.

Patronize only thoroughly competent dentists. The teeth are too valuable to risk their ruin by poor work, for the sake of saving a few dollars.

There is nothing that can so mar the beauty of the human face in its most pleasing aspect as a mouthful of badly decayed or discolored teeth.

Most of the neuralgia of the head and face results from diseased roots or decayed teeth. Medical treatment will not cure it but may relieve it.

We may employ skill to remedy physical defects caused by our own neglect, but we can not have these defects restored to a normal condition.

The progressive modern dentist will very rarely find it necessary to extract a troublesome tooth if allowed to follow his own judgment in the matter.

If we neglect to pay proper attention to our teeth, nature will exact a penalty from us that will tax our physical endurance for all time to come.

If the portal or entrance is broken down or decayed, we shall find the building in like condition. So with the teeth and mouth as compared with the body.

Prosthenic dentistry, or the art of restoring lost organs, is reaching a high degree of perfection. No one need be without artificial substitutes for lost teeth.

If you neglect your teeth the fillings are apt to fail, your dentist is unjustly blamed, and your most intimate friend will not tell you that you have a bad breath.

Do you care for the health and vigor of your children? If you do, study the conditions that produce sound health, chiefest among which are sound teeth and proper diet.

If people never see described in print, and are never told by a dentist what are the possibilities of modern dentistry, how are they to be blamed for not knowing it?

The fact that dental work is disagreeable, should not prevent all persons from having it done, and in time, for delay usually means simply an increase of the very thing dreaded.

If a physician fails to cure a case that common gossip thinks should be restored, how "Mother Grundy" does busy herself belittling the professional ability of the unfortunate doctor.

Teeth must be extracted at the proper time to give space for the new teeth. Try to have the teeth grow without coming in contact with other teeth in the same arch.

After the teeth are all through the gums, a brush must be used in addition with some kind of a wash that will cleanse the teeth; brush up and down, not across the teeth.

If the same care were given the natural teeth from childhood that is necessary to properly care for and cleanse a set of artificial teeth, the latter would not so often be needed.

That teeth with dead nerves will give no further trouble is a popular belief, but a very serious error. "Dead nerves" give rise to more serious complications than are possible from ordinary toothache.

It is not generally known that a root or badly decayed tooth can be replaced in appearance and use, by placing an artificial crown on root, but it is done with perfect success.

Many people think that a decayed tooth once filled should last a lifetime, and are inclined to blame the dentist for his failure to preserve the tooth. A tooth that has once decayed may decay again sooner or later.

Wearing temporary teeth too long often results in permanent injury to the gums, especially in cases where rubber plates are worn. They should in no case be worn more than a year.

How can the system be nourished by food that is not properly masticated? The overworked stomach rebels finally, and our national disease, dyspepsia, counts another victim.

As a rule, all sound teeth, or those that can be made serviceable, should remain in the mouth when preparing it for artificial teeth. This is especially true if it refers to the lower teeth.

There are many persons the conditions of whose mouths are not equalled for foulness anywhere in the animal kingdom. They are not only a punishment to themselves but to every one with whom they associate.

It is not fair to expect the dentist to exceed nature. If nature's work lasts no longer, the dentist can hardly be expected to do what nature did not do, give you teeth that will not decay unless they are *artificial*.

Some one has suggested that a law should be passed punishing dentists for extracting teeth that should be saved. It would destroy the business of about one-half those calling themselves dentists.

The idea that when the nerve is "killed" no more trouble will follow from that tooth is entirely wrong. Ulceration, swelling of the face, etc., are only experienced when the nerve is "dead"—never before.

Never tell a child that any necessary dental operation will not hurt. A falsehood does two things, deceives the child to no good purpose, and causes a loss of confidence in its elders that may never be regained.

Neuralgia of the heart -angina pectoris -may be due to heart disease, and yet it as often occurs independent of the latter. When it complicates heart disease, death is very liable to occur during an attack of neuralgia. As diseased teeth are a predisposing cause of neuralgia, how important it is that we keep these organs in a condition of health.

NEURALGIA. The terrible suffering often endured for months from this affliction is frequently considered a mystery. "Everything is done for it," but without affording relief. Let it be understood that almost invariably it is caused from bad teeth.

Never wait for the "swelling to go down" in an abcessed tooth before extraction. Very serious results may follow such delay, in a few cases, resulted in death. Never delay visiting a good dentist when swelling appears.

When people use a little good judgment in the matter of preserving the natural teeth we shall see fewer dyspeptics, less neuralgia and general debility, as well as the disfiguring of the face by the loss or bad condition of the teeth.

Do you brush and cleanse your teeth daily? If not, why not? They need it quite as much as your face and hands yet you would consider it a piece of unpardonable impertinence if any one asked you whether you washed your face daily or not.

"Dentist," said a young lady, "I thought after the nerve of my tooth was destroyed that I would have no further trouble from it." "I sincerely hope, madame, that you do not intend to hold me responsible for your thoughts," answered the doctor kindly.

Never have a tooth extracted if it is capable of being made to do good service. The dentistry of to-day, unlike that of the past, seeks to save teeth rather than to destroy them. The time is coming when it will be considered malpractice to extract sound and serviceable teeth.

Most people live in expectation and with the full conviction that their teeth must decay and must be extracted, and seem to have no other thought. Nature never so intended it, and the sooner a very different notion prevails among all classes everywhere, the better for the race.

That all persons can wear artificial teeth with equal comfort and satisfaction is another very common error. It is utterly impossible for artificial teeth to be fitted to some mouths, the very contour of the mouth and the condition of the gums make it well nigh impossible to secure the necessary adhesion.

It is almost amusing to see the look of astonishment with which many people receive the statement that the first teeth of children should be preserved by filling if they begin to decay before the time for the second set. In order of importance we should place the preservation

and care of these teeth first. If we had to choose between the best of care and dental service for the first or second set of teeth, we should give the first teeth the preference, knowing, as we do, that the second set would be in far better condition to do good service if the first set received proper care and treatment.

When people understand better the value of the teeth in the process of mastication of food, and the serious injury and frequent loss of health caused by their loss, there will be less carelessness and neglect of these valuable organs.

The best remedy for the abuses practiced by so-called dentists, and which dental laws are entitled to correct, is to instruct the people so thoroughly that "quackery" will be an impossibility. The greater the ignorance the more prosperous is quackery in any calling. Knowledge is a specific for *many* evils.

From the standpoint of *health* a person had far better be blind or deaf, than to be toothless. This is a startling proposition in view of the practice and belief of a large proportion of humanity, but we think any intelligent person can see the truth of it when he considers the value of the teeth in the human system.

It is a common thing to hear people say "I'll never have my teeth filled, but will let them go and have them out and get a new set." By that kind of talk, people acknowledge their own carelessness and neglect, for the teeth would not reach such a condition as to warrant such an expression, if the owner had done his duty.

We know of many cases of confirmed invalids, for whom medical treatment could do nothing, cured by putting the mouth in proper condition. More money is spent in doctor bills for treating disease resulting from diseased teeth, than first class dental service and the saving of the teeth would have cost, leaving out of the question the loss of time and the suffering endured.

Nature intended that man should masticate his food, and it is a mystery how people who have few or no teeth, manage to live. The fact that they do, show the wonderful adaptation of nature to new conditions. Yet all do not live in the fullest sense, for many are broken in health and suffer from dyspepsia and other diseases, that are more or less directly the result of a loss of the teeth, or a diseased condition of the mouth.

There is no question that putting the mouth in a healthy condition, has in many cases lengthened, if indeed it has not saved, the lives of persons suffering from diseased conditions caused by bad teeth. However, the teeth should be examined by a good dentist once or twice a year, and i any are decayed they should be filled at once. Do not neglect decayed

teeth until they ache, and never have a tooth extracted if it can be saved

The dentist, who is satisfied with limiting the effect of dental teaching to those who may occupy his operating chair, is not worthy the name The world is full of people who have never heard the new gospel of "Salvation" for the teeth offered by the skill of modern of modern operative dentistry, and who will go to their graves in ignorance of its power to benefit them if no dentist makes an effort to teach people what they do not know.

There are over 20,000,000 of teeth sacrificed annually in the U. S. through ignorance or carelessness, and the criminal neglect thus exhibited "involves not only the waste of teeth, but is the fruitful cause of abcesses, facial deformities, neuralgias, dyspepsias, headaches, eye and ear troubles, and other morbid conditions."

"Killing the nerve" in an aching tooth is considered by many as a panacea for all trouble in that particular tooth. A dentist knows better, if he knows anything about his business. When an application has been made to destroy the vitality of the pulp (or nerve) it must be followed by proper treatment, cleansing and filling of the nerve canals in the roots, finally the cavity of decay filled.

No greater mistake can be made than the common one of neglecting decayed teeth until they ache, and then rush off to the dentist to have them filled. The average dentist will advise extraction. The tooth, if aching, can be saved nine times out of ten by proper treatment, but it takes longer, is more painful and far more expensive, than to have the same cavity filled when small and thus have prevented all extra trouble and expense.

It is difficult for a dentist to improve on Nature's work. If a sound tooth will decay, then a filled tooth is liable to do the same, no matter how carefully it may be filled. Hence it is as foolish for a dentist to guarantee fillings "five years," or "ten years," as it would be for the doctor who cures you of a disease to-day to guarantee that you never will be attacked with the same disease again. None but quacks "guarantee permanent cures."

The amount of sickness and ill-health caused by decay and loss of the teeth cannot easily be estimated. People frequently suffer from dyspepsia, neuralgia and other nervous affections, diseases of eyes, ears and throat caused directly or indirectly by the diseased condition of the teeth and mouth, and spend large sums of money to cure a trouble that a little personal care and small expense would have prevented, and the skilful dentist could cure.

It is painful to see the monuments of the unskilfulness of so many dentists that thousands of people are carrying around in their mouths. Many look as though the dentist had unconsciously turned his wonderful genius

to setting in white and ghastly prominence a single or double row of shining headstones, each to commemorate the memory of the departed tooth, whose place it is supposed to occupy. But usually such ghastly spectacles of a lack of skill and taste are the cheapest, and the few dollars thus saved condones for all the unsightliness of the face caused by such work. How cheaply some people value their personal appearance when it comes to artificial teeth! The very best that can be made are but poor substitutes for the natural teeth. It is a remarkable fact that you cannot get a good first class article for a third or fourth class price. This remark applies to artificial teeth as well as to boots and shoes, or watches and other merchandise.

Notes from the Proceedings of Societies.

THE IRISH BRANCH, DUBLIN, ANNUAL MEETING. The meeting of the Association in Dublin last year developed the local talent of the Emerald Isle, and meetings of the Branch are regularly held. The meeting on the 27th July proved to be practically interesting—our friends, Messrs. R. T. Stack, W. Booth Pearsall, as usual, coming well to the fore.

EDINBURGH DENTAL HOSPITAL AND SCHOOL. Scotland has wakened to the advantages of dental education, and the Edinburgh Institution is having a great success. Mr. W. Bowman MacLeod, L.D.S., read the Report for Session 1888-89. Efforts were being made to affiliate the Dental School to the Medical School of Edinburgh. Dr. Joseph Bell, President of the Royal College of Surgeons, in the chair, said that if it were at all possible, the dentist ought to be a medical or surgical specialist, if possible a surgeon first, and a dentist afterwards.—*Journal of British Dental Association.*

Dental Association of the Province of Quebec.

The regular meeting for the election of a new Board and other business, was held in the rooms of McGill Medical University, by kind permission of the Faculty. The following licentiates were present: Messrs. Trestler, Brewster, Leblanc, Bazin, Globensky, Gentles, Young, Pepin, Andres, Brown, Nichols, Fiske, E. B. Ibbotson, J. S. Ibbotson, Lovejoy, Vosburgh, Stevenson, Gendreau, Bourdon, Bourbonnais, Brosseau, Berwick, Seers, Mauffette, Cadieux, Fitzpatrick, Monjon, Larose, McDiarmid, Beers, of

Montreal: E. Casgrain, Quebec; J. A. Porter, G. W. Adams, Danville; C. H. Wells, Huntingdon; L. W. Dowlin, A. W. Hyndman, Sherbrooke; B. S. Stackhouse, Lachute; J. McCrae, Cookshire; Lantier, Three Rivers.

Dr. C. F. F. Trestler, President, in the chair.

After the presentation of the Secretary's report, a report was presented from a special Committee of the Board, proposing the reorganization of the voluntary society; its name to be changed to the "Odontological Society of Quebec Province," and to be chiefly under the management of the junior members of the profession, while supported and encouraged by all. It was suggested that the Board co-operate with this society, in the organization of the proposed Hospital Service and Clinical system referred to at the last meeting of the Licentiates, in 1886.

Messers. Andres and Lantier were appointed scrutineers; and Dr. Trestler addressed the members, and reminded them that he was not as young as he was when the Association was founded; that without a single omission he had done duty on the Board for 21 years, and he wished to retire from office; Dr. Brewster also expressed the same desire. The following were then elected the new Board: Messrs. Beers, Globensky, Casgrain, (Quebec), Leblanc, Hyndman, (Sherbrooke), Bourdon, Andres.

The motion to form the new Society was then presented and carried, and the following were elected officers: President, E. B. Ibbotson; Vice President, J. C. Nichols; 2nd Vice-President, Brosseau; Sec.-Treasurer, F. A. Stevenson. Committee: Messrs. Gendreau, Cadieux, Gentles, Berwick, Vosburgh, Brown, Pepin.

The meeting then adjourned, after passing votes of thanks to Dr. Trestler, and to the Faculty of McGill College, for the permission to use the rooms.

MEETING OF THE NEW BOARD.

The following were elected officers: President, W. G. Beers; Vice-President, Ed. Casgrain, Quebec; Secretary, L. J. B. Leblanc; Treasurer, S. Globensky; Registrar, S. J. Andres.

ESSAYS, DISCUSSIONS AND CLINICS.

The Board had decided to set the ball rolling, in connection with the voluntary Society, and the outcome was an afternoon of interesting clinics, in the Library of McGill College. Four chairs and the necessary appliances were in position.

2 p. m. J. B. Vosburgh, setting Richmond crown. J. C. Nichol, filling with Watts crystal gold. This was a crown of lateral incisor, built down from root, using automatic mallet. J. Gentles, setting Ottolengni crown on left c. incisor. C. H. Wells, Huntingdon, capping exposed

pulp. G. H. Weagant, Cornwall, Ont., filling with copper amalgam. P. Brown, excavating under N. O. Gas, filling with electric mallet.

The following essays were read and discussed, and one good feature was that they were limited to ten minutes each: "Anæsthetics," by A. Lantier, Three Rivers; "Treating Pulpless Teeth," by J. A. Bazin; "Dental Ethics," by L. J. B. Leblanc; "Celluloid: Is it worthy of recommendation?" by S. Globensky; "Copper Amalgam," by G. H. Weagant; "Dental Education," by S. J. Andres; "Professional Fees," by B. S. Stackhouse.

THE DINNER.

A recherche dinner was held in the Ladies' Ordinary, of the Windsor Hotel, and the table was one of those fairy-land surprises, for which the management of this "finest hotel on the continent" is famous. There are bigger hotels in America than the Windsor. There are none cosier, cleaner, or more comfortable. It was evident that the very suggestion had been a popular one, though it was only a family affair, and no invitations had been extended beyond one to the nearest Ontario licentiate. About fifty sat down to table Dr. Trestler in the chair, having Dr. Weagant on his right. The registered students were also present.

After dinner, which was made more appetizing by a quartette of musicians, Dr. Trestler proposed the toast of "The Queen and Royal Family," in the following appropriate words:

I have the honour to give you the toast of the Queen and Royal Family, Millions of times this toast has been received with loyal respect in Canada, but it is of special interest to us as Dentists, to think that Her Majesty has personally honored our profession, by bestowing knighthood upon her household dentist, now Sir Edwin Saunders. She has also specially honored Dentistry as a science, by knighting Mr. John Tomes, the pioneer and chief promoter of modern dental science and education in our great Empire.

The members rose and sang "God save the Queen."

"The Governor-General" next followed. Then came "The Army, Navy and Volunteers," to which Capt. Ibbotson, of the Royal Scots Volunteers, replied as follows:

He said he felt it a pride and privilege to respond to the toast, as a member of the Royal Scots. The history of Canadian volunteering was well-known to its friends as well as its foes, and the constitution of the force in the Dominion was something of which, as loyal Canadians, we have a right to be proud. In 1860 and in 1866, at the times of the Fenian *fiascoes*, our volunteers, who are now proud to call themselves the Canadian Reserves, bore the brunt of duty. Upon every occasion, small or great, the difficulty was that everybody wanted to volunteer. Canadians were not fond of, but they were not afraid of, fighting when the defence of Canadian homes was at stake.

During the last North west troubles, this was again proved. In two hours after an unexpected notice was given to this Regiment, it was completely and efficiently under arms, and only too anxious to be sent off. In saying what he has said of the Volunteers, everybody knew that in love of land, in the desire to do their duty, and fearlessness of results where duty led them, the Volunteers of Canada were the pupils and imitators of the examples in the Army and Navy of our glorious Mother Land.

H. Pepin supported the toast as follows in French and English:

Mr. Chairman, and Gentlemen, It gives me great pleasure to respond to this toast, as a former French Canadian Volunteer, an old member of the 65th. Professional men, as a rule, have duties toward the public of such an exacting character that they feel they cannot give their time to volunteering, and yet it is a satisfaction for us, as Dentists, to know that our profession has given quite a large number to the rank and file, and that during the Fenian Raids, during the North-west *emeute*, and on other occasions, our confrères did their share of duty to our beloved Canada.

History can tell you how loyally French-Canadians did their part as citizen soldiers in the past.

They will do it again if foes should ever invade our land.

The Empire under which we live has its soldiers and sailors and volunteers on every shore and every sea, but nowhere, in this great Empire, can you find freer men, or volunteers, who have stood fatigue and long marches better than the volunteers with whom I had the honour once to be associated.

I feel proud to respond to this toast, and though I have laid aside the sword for the plugger, I am ready when duty calls again, to serve my country, and leave my patients to the "Home Guard."

Dr. Casgrain, of Quebec, then rose to propose the toast of "The Past and Present Presidents," and speaking in English, he paid a high compliment to Dr. Trestler, who had occupied the chair for the last three years with so much sympathy and genial dignity, and who, he hoped, would enjoy great happiness in the reflection that he had been the friend of every licentiate who desired to respect himself and his profession. He spoke very kindly of Dr. Trestler's successor.

Dr. Trestler and his successor briefly replied.

A. Lantier then proposed "The Board of Examiners" in the following speech in French and English:

Mr. President, and Gentlemen,—In proposing the toast of the new Board of Examiners, we must remember we are toasting the health of men to whose ability and sagacity, we will soon owe a great deal, so far as the Dental Profession is concerned.

It is no easy task to occupy such positions in our profession. We have difficulties to encounter here that are to be met nowhere else in the civilized world. Dentists are attempted to be made by Act of Parliament. We have no Colleges proper for the training of students; we are conspicuous for the lack of wealth, and we are bounded on every hand by these

pests, called quacks. Gentlemen, we are aware of the difficulties you will have to contend with, and we as accredited members of the profession give you our cordial sympathy; we will support you in any measures which you may propose to further the interests of our truly humanitarian work. Gentlemen of the Board of Examiners, some of you have already performed services to our profession which are truly praise-worthy: we praise you for your laudable efforts to maintain and increase the standard of efficiency and culture, we must keep abreast of the times, you are to maintain our position in social life and in public life and as a profession. There must be no royal road, save that of a full course of study. We feel that the late Board has been doing efforts in that direction. Doctors require a full course, lawyers require a full course, and why should we be more lenient than they? We ought to have the full control over those who propose to become dentists. In asking this, we are asking no more than what was granted to us by our Act of Incorporation. But, gentlemen, we realize that your work will not only be beneficial to the Dental profession, but to the general public as well. In saving the public from the hands of incompetent men, in arresting quacks, you are doing public duty and a public service. The public will soon appreciate your efforts; people do not want to be trifled with, with those evils to which the teeth are heir to, no more than the evils the flesh is heir to. If I see the wish of the public aright, it is, Send your properly trained and recognized men not only in Montreal and Quebec, but also in more humble cities, so that we may be sure of proper treatment. Gentlemen, we look to you for protection in this matter. Leniency in a matter so essential and so vital is almost suicidal. We elected you to this high and honorable position, because we believe you are worthy; it is because we believe you have the interests of the Dental profession at heart, it is because we believe you are able and willing to lead us on as a body to that eminence, to that success, to that honor and respect which every member of the profession pursues. Do not let us lower our standard, but to-day, as well as always, let our motto be "Excelsior."

He was supported by J. A. Bazin, who recalled the early times referred to by his friend Brewster, when the first attempt was made to get a meeting, and there were only the two of them present. There were then only eight dentists in Montreal. He referred to the growth of twenty two years, and the hopes for the future.

Dr. Trestler replied as follows:

Gentlemen,— It gives me special pleasure to meet you here this evening in commemoration of the 21st birthday of our professional organization in the Province of Quebec, and to share as your President in the gratification those of you must enjoy, who look back on the past twenty-one years of earnest work as active officials. As has been said, dental organization in Canada was coincident with the birth of our Dominion, and if our statesmen feel any pride in the fact that they were the fathers of a people, we may feel some pride that we were the founders of a profession. Those of you who have entered the profession since its incorporation, can form little idea of the position we occupied, when we were not only a small but an

uninfluential body, without either professional recognition from the public, or our colleagues abroad; when any uneducated man could hang up his sign as a dentist. Would any of you wish to return to that condition? I think not. It would have pleased me very much, and perhaps have profited you, were I to make a retrospect of our growth from the small beginnings of 1868, when on the 2nd day of September the following dentists of this city met to discuss the proposed organization and incorporation of the profession. Messrs. Bernard, Trestler, Brewster, Bazin, Beers, Cantwell, Alloway. It is an interesting coinciden e this evening that exactly twenty-one years ago yesterday, the following dentists met and organized this Association. Messrs. Bernard, Trestler, Brewster, Leblanc, Beers, Bazin, Belle, Webster, Alloway, Nichols, and Valois, of Montreal; McKee, of Quebec; Lefairve, of St. John's; Dowlin, of Sherbrooke; and Brodeur, of St. Hyacinthe. No one can estimate the amount of thought and attention which the first Board of Trustees and Examiners had to give to organization and labours which were new to them; but, gentlemen, if the various Boards have never attained that perfection which you expected, it cannot be said that they ever usurped privileges, or shirked responsibilities, and that perhaps no other corporate professional body in Canada has had more constant and annoying battles in the Courts and the Legislatures in defence of those for whom they were trustees.

We have had two difficulties to meet which our friends in Ontario had not—the numerical weakness of our ranks and the dual languages. The cost of managing this Association depends upon a tenth of the number that exists in Ontario, while the cost of printing our documents in the two languages doubles this item alone. Only within the last few years our modern authors have been translated into French, and works accessible to the English have only recently been obtained by the French students. I am gratified to say, that without a single exception, the most complete harmony has always existed among the members of the different Boards.

Gentlemen, it has been, and will always be a very easy task to find fault. It is easier to show in speech or on paper what ought to be done, and what could be done. But it is far easier to plan great campaigns than to win small ones, and there are no ocean sailors, you know, so brave as those amateur yachtsmen who have never seen the sea. Gentlemen, if we were able to tax the profession as our city is able to tax the citizens, we might endow great institutions and do great things, but you are aware that we occupy an honourable and a protected position to-day, and that this is due not to the prophets of disaster, or the timid, but to earnest workers, who, I may say, have never ceased to feel their responsibility, and to do the best our circumstances and our surroundings would permit.

My experience goes away back to a time, when in spite of the absence of organization, and in spite of a fashion of secrecy, there were men in our ranks whose names we should not let die. I recall the names of Spooner, the discoverer of Arsenic for destroying pulps; Scripture: W. H. Elliott, whose contributions to the *American Journal of Dental Science*, attracted much attention abroad; Bernard, our first President, and who became Mayor of Montreal; Vanbuskirk, Jourdain, Webster, Dickinson, the worthy predecessor of Bewster; Bowker, all old practitioners here, Hon. Dr. Baillargeon and

Dr. McKee of Quebec. I recall the names of several of our younger men, Local, Samuels, Nutter, dead. Gentlemen, when I recall the many pleasant associations I have had with my confreres, both before and since the organization of the profession, I look back on the past with happiness as you may look forward to the future with hope. I feel that when we who have been the founders have passed away, those of you who are to succeed us will remember us with feelings of generous brotherhood, as we remember those who are gone, and that whatever our shortcomings, we did our best for the common good of Canadian Dentistry. Thanking you for your attention, and trusting that as we celebrate to-day the coming of age of this Association, many of you may be spared to enjoy its golden wedding.

Dr. Chas. Brewster in proposing the toast of the "Dental Profession of Ontario," said he felt it a high honor to have the privilege of doing so at the largest gathering ever held of the Quebec Profession. Ontario was the largest Province in the Dominion, it had the largest number of Dentists of any of our Provinces, and occupied politically and professionally the most influential position in the Confederacy. The profession there had the honor of being the first body of Dentists in the world to secure an effective Act of Incorporation. No other State in the world can say it was before them. It may be interesting to recall a bit of professional history not known to more than three or four present. In 1858 he issued a circular to all the Dentists he could find in Ontario and Quebec, asking their opinion of the propriety of incorporating the profession in the two Provinces. He did not know at the time that the two Provinces could not act together in this matter, and we in Quebec were numerically too weak to act alone. However, the result was that favourable replies were received from those to whom he wrote, and the ground broken for the movement, which was subsequently led by one of his correspondents, Dr. B. W. Day, of Kingston, the father of the Ontario dental legislation. In this way, he felt a personal sympathy and identification with the profession in Ontario, and he only regretted that there were not more of the Ontario Dentists present. We have greater difficulties to contend with in Quebec, but from the great unanimity displayed to-night, we may hope that some day we shall have a Provincial College, though nothing should be done hastily. He was glad to couple with this toast, the name of Dr. Weagant, of Cornwall, who had made a good name for himself of more than a local character, and whom we are very glad to have among us.

Geo. H. Weagant replied as follows:

I thank you heartily for the very generous manner in which you have drank the toast of the Dental Profession of Ontario. I thank you also for having coupled my name with that toast so cordially. I assure you that I fully appreciate the proud position in which you have placed me, and consider that you could not have conferred a greater honor than by inviting me to respond. I regret that so important a duty has not fallen into hands more worthy and better able to do the subject, the justice it merits. I feel that I can say but a small portion of what ought to be said on the subject. I even feel guilty for having accepted the invitation to respond to this toast, and were it not that the honorable position of being the representative of such a body of men as the Dentists of Ontario has filled me with a com-

age which I would otherwise consider to be foreign to my nature, I think I should be inclined to resort to ignominious flight. "Speech is silver, silence is gold," and I am going to use gold to-night as a filling material. However, like all of you, I love my profession, and I love my country, and were I able to express the hundredth part of what I feel, my eloquence would occupy the remainder of the evening. You may be thankful that I cannot inflict so great a misfortune upon you. I might tell of the struggles and difficulties which the pioneers of Dentistry in Ontario have been able to overcome, of the results which they were enabled to accomplish, and which I am proud to know have not been altogether profitless. I might, like my friend and preceptor, Dr. J. B. Willmott, at the meeting of the Ontario Dental Society this summer, relate to you all the details of the conception and birth of Dentistry, as a profession, in Ontario. How faithful and loving hands nursed and tended it through all the ills which an infant of that kind is liable to receive: how they guarded and guided it in its boyhood and watched with parental pride its growth and development through youth to manhood, and how, upon arrival of its majority, provided so rich an inheritance upon its birthday affiliation with the University of Toronto; that all true-hearted Canadians, whether of Ontario, Quebec, Manitoba, or any other Province, unite in a feeling of just and natural pride in an event which cannot fail to tend to the elevation of the professional standing of every Canadian Dentist. It is the custom with Dentists in speaking of the history of our profession, to endeavor to trace the origin back to very ancient times. They even disturb the old Etruscans, Phœnicians, and Egyptians in their graves, and would if they could, go back to the time of our mother Eve, who, no doubt, had her teeth set on edge eating the apple, but I tell you there men now living who can look back to the origin of Dentistry as a profession. An eminent Dentist has said that the rapid advance of Dentistry during the last 20 or 25 years is due to the following four causes, viz.:—Dental Societies, Dental Schools, Dental Literature, and Dental Laws. The Profession of Ontario is especially fortunate in the possession of these four powerful forces. We have two flourishing associations—a School of Dentistry, which in point of thoroughness, need not take a back seat with any other institution of the kind in the world. We have a Dental law, and lastly, thanks to the enterprise, energy, genius and zeal of our friend, Dr. W. Geo. Beers, who although practicing in Quebec, I am glad to claim as also an Ontario licentiate, we have a Dental Journal.

Numerically the Dentists of Ontario are stronger than all the other Provinces of the Dominion, and naturally should take the lead in all changes which are calculated to advance the Profession. I trust that before long we shall see our way clear to a system which will break down all barriers which at present stand between the interests of the Dentists of the different Provinces of Canada. A system which will unite the different educational institutions and which will allow a Dentist of Ontario to be as good a Dentist in Quebec as he is at home.

The object of our Dental laws is to have men who enter the profession especially fitted for its intelligent practice, by education and a thorough training in a Dental College.

There is a general feeling among the majority of the Ontario Dentists that the present method of electing a Board is an unjust one, and gives too great power to the minority. Most of the Dentists are unable to attend the meetings called for the purpose of election, every other year, and those who do not attend have no voice in the meeting. The consequence is that out of the four hundred dentists, there are often only about sixty to conduct the business, not at all a representative member. It has been suggested that some method of election through the mails would be advisable.

A. W. Hyndman, Sherbrooke, proposed "The Dental Profession of Quebec," briefly referring to the time when every Dentist or would-be dentist, was a law unto himself.

W. Geo. Beers replied.

Geo. W. Lovejoy proposed the toast of the Secretary, and spoke of the devotion that official had shown, and of the difficulties in Quebec Province of such a position. There was not another man in the profession who could do better, if as well as he had done, and he hoped the members would support him, as almost every day he had to work for them,

L. J. B. Leblanc responded, touching very modestly upon his position.

S. Globensky gave the toast of "The Ladies," in a neat and witty speech, to which F. A. Stevenson and J. E. Mauffette made clever replies the former in English : the latter in French.

"Auld lang syne" was then sung alternately in English and French, with linked hands, and "God save the Queen" closed the meeting. During the evening, Messrs. Bourden, Bourbonnais, Lantier and Larose, gave vocal and instrumental selections.

Our Canadian College.

The announcement of the R. C. D. S. for 1889-90 came to hand not long ago. Several important changes in the curriculum of the college have been made. Hereafter no certificate will be accepted for matriculation which does not include an examination in Latin, and students will be obliged to spend three full years in the study of dentistry, during which time they must not be engaged in any other occupation or calling.

The honor examination heretofore conducted by the faculty during the last week of the session has been discontinued, and with it has gone the faculty gold medal which has been so keenly contested for from year to year. The expediency of giving medals and prizes to students under any circumstances has been often called into question, and as the University will confer honors in connection with its examinations, it may be that the

necessity for a special honor examination has passed away. Still the competition for the faculty medal had a very stimulating effect upon the more ambitious students, and there are, no doubt, some who regret that they will not have a chance to compete for it. The college gold medal will be given as usual to the candidate receiving the highest number of marks for practical work, and a silver medal to the candidate receiving the second highest number of marks, and the competition for these will no doubt be very keen.

Every year the announcement contains a paragraph headed "Museum," stating that the directors and faculty are desirous of forming a collection of pathological and other interesting specimens, and earnestly requesting licentiates to forward such specimens as they can spare. There is something very pathetic in the statement so often repeated, that they "are desirous of forming a collection." Why doesn't someone send them a lower molar with three roots, or a fibrous tumor preserved in alcohol, so that they can say that they have *started* a collection? Few dentists have specimens which they consider valuable enough to *start* a museum with, but if they knew that a small collection was already formed, and that the faculty would be grateful for every donation however small, they would be more likely to contribute.

The students too, might do much towards forming such a collection. They wonder why it is that a collection has not been got together by someone else for their benefit, but they never think of bringing specimens from home and starting a museum themselves. It is true during a recent session the students did set aside a part of the laboratory for a museum, and placed therein the college vulcanizer, a worn out flask with broken bolts, several plaster casts, a handful of extracted teeth, two or three specimens of dental advertising, and a piece of sand-paper one and a half inches square, generously donated by the demonstrator. These were to form the nucleus of a collection, and all would have been well had it not been for the janitor, who, that very same night, returned the vulcanizer to its place and threw the rest of the specimens out of the window. It is needless to say that the dejected students made no further effort to establish a museum that session.

Now, if the students were to take the matter in hand, one would think they could collect enough specimens in Toronto alone to form quite a respectable collection. Almost every dentist would be able to contribute something, and each student could, no doubt, bring something with him from the office of his preceptor. By this means a museum could be started, and once started, there is no reason why it should not grow rapidly. Let us hope that before the next announcement is issued, the long-felt desire of the directors and faculty will have been gratified.

Editorial.

Volume Two.

No rash promises were made in No. 1, none will be made in No. 4. We have every reason to be satisfied with the general support of our own brethren in Canada, and our many good friends over the border and over the ocean. We have given more in the way of illustrations and pages than we promised. If we should do so again, it will be in response to prompt remittances. Volume two will appear as a quarterly. If you have not paid for vol. one, it would be timely to send two dollars, to include vol. two.

THE NEXT NUMBER Will be of more than usual interest to Ontario Dentists. We invite contributions for it specially from our Ontario friends, no matter how brief: practical hints even of a few lines will be gladly received. There is not a practitioner in Ontario but could help us if he tried.

The Porcelain Dental Art.

We received so many inquiries from our subscribers in the different Provinces, with reference to this new introduction to the *repertoire* of the Dentist, that we determined to satisfy our own interest as well as theirs, and examine into the matter. After two visits to headquarters, we have no hesitation in expressing the conviction that it is the most important reformation in operative practice since the introduction of the rubber-dam, and that it has such an infinite variety of applications, and commends itself so much to the want of patients, that it must become indispensable. Of course, it would be more agreeable to us if there was no patent, but this question has two sides. We are every day using implements and materials, and unconsciously paying ten times their value or cost, just because the manufacturer has to pay heavily for the privilege of making and selling them. If any one chooses to patent an article we need, there is nothing stronger than our ethical laws to punish him, but it does seem sad encouragement to ingenuity or genius, that men like Barnum, who introduced the rubber-dam, should die poor. At any rate, the Porcelain Dental Art is well worth having; in fact, it must be had, and it is well worth paying for. In the next number we will give important details, illustrated, together with impartial experience.

Correspondence.

To the Editor of the DOMINION DENTAL JOURNAL:

Dear Sir, It has recently come to my knowledge that an individual, by the name of Bell, has been visiting the Dentists of Ontario, selling a "Local Anæsthetic," and using my name as having purchased it, and speaking in the strongest terms in its praise. It is only fair to myself to say that Mr. Bell has not called on me, nor have I seen him or had any communication with him whatever. I know nothing of his nostrum, but, from the fraudulent manner in which he is using my name and the names of other prominent Dentists, to assist in its sale, I would infer that it is probably as great a fraud as its vendor.

Yours truly,

Toronto, Sept. 16th, 1889. J. B. WILLMOTT.

Fees in Canada.

To the Editor of the DOMINION DENTAL JOURNAL:

Dear Sir, I felt much personal interest in the article in your last issue by "Ontario," and it is painfully evident that Dentists in this country, who give the best of their skill and knowledge to their patients, do not receive that compensation, as a rule, to which as professional men they are due. It is true that industry brings success, but what sort of success? Rarely more than a very ordinary living. "Ontario" puts it very clearly when he shows that our labor is exhausting, inducing cerebral pressure and nervous exhaustion: and I would add that if this justifies us in expecting the ordinary substantial comforts of life, it justifies us in expecting the very luxuries of life, and the ability to give our sons and daughters the best education, without shoving them into the world half-fledged.

Let me urge this consideration as a Dominion professional question: that of charging for consultations. It would be a very easy thing for local dentists to agree on this one point at any rate. It is a misnomer to call Dentistry a profession if our experience and advice is given gratuitously. Without advising extravagant fees, I feel that the whole profession ought to take a few steps up the scale, and that the discussion of this subject ought not to be tabooed in our conventions. During my residence in Ontario, the cost of living was increasing as the fees were lowering. We have not yet much to boast of in the way of an advance in British Columbia, but I expect to see the day soon when Victoria will lead any city in Ontario or Quebec in this matter. Yours truly,

Victoria, B. C. PACIFIC.

Reviews.

THE PROPHECY OF MERLIN AND OTHER POEMS. By John Reade. Among the "Miscellaneous" in this number we publish a gem from this book of gems. Canada has many sweet singers and John Reade's verses can never die.

SONGS OF THE GREAT DOMINION. Voices from the Forests and Waters, the Settlements and Cities of Canada. Selected and Edited by Wm. Dowee Lighthall, M.A., London. Walter Scott, 1889, Toronto and Montreal. A delightful book for the dentist's table, gathering into a rich cluster over four hundred and fifty pages, comprising selections from Canadian poets on: 1. The Imperial Spirit. 2. The New Nationality. 3. The Indian. 4. The Voyageur and Habitant. 5. Settlement Life. 6. Sports and Free Life. 7. The Spirit of Canadian History. 8. Places. 9. Seasons. We are sure that any Canadian who buys this book, will go back to it a score of times in a year. It is full of verbal music and inspiriting nationality. It is a book that ought to be in the hands, the heads and hearts of every lover of his or her country. It ought to be introduced into our schools and colleges.

DENTAL CARIES, AND THE PREVENTION OF DENTAL CARIES. By Henry Sewill, M.R.C.S. and L.D.S., Eng. Second Edition. London: Baillhere, Tindall & Co; Montreal: E. M. Renouf, St. Catharine Street.

We have seldom, if ever, been more interested in any manual that has appeared in our Dental literature, than this little book, of 93 pages, which is not only a work of more than usual ability, but has, perhaps, no equal as a condensed model of dental literary composition, that would bear much amplification. Those who are familiar with theories, borrowed to some extent from Bell, who compared caries of the teeth, which begins in the hard part of the tooth, with caries of the bones (ostitis) which begins in the soft parts, and who described the former as an inflammatory process in the bony structure, will understand the argument of Mr. Sewill, from the following extract -which, in itself, is an epitomized model:

"Caries is a process of disintegration, commencing invariably at the surface of the teeth, proceeding inwards, and due entirely to external agents: enamel and dentine are passive under this process of disintegration, and manifest neither pathological action nor vital reaction of any kind. By pathological action I mean: (1) morbid changes in the tissues induced or produced by the influence of the vascular and nervous system: and (2)

morbid changes in the tissues, in which changes vascular and nervous influence, may, perhaps, have no share, but which are not produced by external agents. By vital reaction, I mean any change in the tissues not solely induced and produced by external agents."

The author establishes the truth of this definition on anatomical grounds, and shows that enamel and dentine are not capable of pathological action —that it is "inconceivable in enamel, and hardly possible in dentine." Mr. Sewill is not half so unmerciful to those whom he opposes, as other honest critics, well known to us, on this continent are to each other, but his trenchant pen is unsparing when he throws on them ridicule with his facts. "A man who can speak of inflammation of enamel and dentine, or of retrogade metamorphosis of those tissues, must indeed, in a like fashion, believe that anatomical fact may be carried too far, and that it is better to rely sometimes, not upon facts, but rather upon the phantasm of a vivid imagination."

We purposed giving our readers a more extended review of this important little book, which we are glad to learn, will, with the author's valuable work on Dental Surgery, have a new edition, but the necessity for this is very agreeably removed by a contribution forwarded us by the author, in reply to some of our past convictions, and which appears among our Original Communications.

We have found this book of such absorbing interest that it has been carried with us a dozen times as a choice companion. It has been a luxury to return to it. It not only gives one the enjoyment of new ideas, but it suggests others, and its language is far removed from that sort of mystification and verbal murder, too prevalent in many of our dental associations, by men who sacrifice sense to efforts at originality.

A Statistical Inquiry as to the Result of the Immediate Treatment of Pulpless and Abscessed Teeth. By Geo. Cunningham, B.A., D.M.D., Cambridge, England.

Should the roots of pulpless or abscessed teeth be ever treated and filled at one sitting, irrespective of their previous conditions? Not every practitioner is competent to give an answer, because not every one has proceeded upon the statistical method employed by Dr. Cunningham. There are lots of people who believe that one swallow does make a summer, and who fancy that one or two successes make failure in all impossible.

At the Washington Congress, Dental Section, 1887, the author contributed one of the most valuable of all the communications, which provoked inter-

esting discussion. He had advocated immediate root-filling in 1886, at the British Dental Association. In 1884, Prof. Hesse, of Leipzig University Dental Institute, was the first to recommend this, as opposed to the Dressing method, and gave statistics of his own experience, and after Dr. Cunningham's paper in Washington, he wrote a letter stating he was in complete accord with his views, and that "Method rather than medicine, had a great deal to do with results." On this continent, Dr. Ottofy, of Chicago, is one of the most ardent advocates of immediate treatment, though he emphasizes the objection to its application in the cases of patients of lymphatic, anæmic, or otherwise sluggish constitutions.

Dr. Cunningham's method may be briefly described. 1. Free access to all roots, without any compunctions as to the crowns. 2. The use of the rubber-dam. 3. Reaming out the root canals with nerve drills in the dental engine, as far toward the apex as is deemed safe, and he recommends the "Morey" flame-headed drill, as supplied by the inventor only. 4. Ingestion or application of mercuric chloride chloroform as a cleanser. 5. Zinc oxychloride for filling the roots, carried on cotton shreds into the finest parts of the canals, leaving the canals wet to facilitate penetration of the material.

The author classifies the cases in which immediate root-filling is applicable as follows:

Class I. Where the pulp is removed by extirpation or devitalization.

Class II. Where a fistulous opening indicates with certainty the presence of an apicial abscess.

Class III. Where the pulp is dead without an actual or obtainable sinus *i. e.* all cases belonging to Classes I. and II.

Contrasting the relative advantages of the Dressing method as compared with the immediate method of treatment, the author forms the following conclusions:

1st. That under the immediate method, there were fewer extractions and failures.

2nd. That there were fewer subsequent attacks, accompanied by swellings, and acute abscess, and therefore the immediate treatment was attended with less pain.

3rd. That it required a considerably less expenditure of time, on the part of both the patient and operator, the average time of treating and filling such teeth, being considerably under an hour.

4th. That in consequence of these considerations, we were able to treat, and able to save more desperate cases, many of the cases mentioned in the record having large perforations of the roots, while others had been already condemned by other practitioners as utterly hopeless.

5th. That method, rather than medicine, had a good deal to do with the results, and that probably the operator, would have succeeded equally well, in a very large number of cases, without any medicine whatever.

6th. That from the difficulty of diagnosing such cases, it is better to conduct every operation with antiseptic precautions."

Miscellaneous.

WE learn with regret of the death of Mr. Chas. Spence Bate, F.R.S., L. D.S., of Plymouth England, on the 29th July last. He was one of the leaders in dental reform in England, and a valued member of the British Dental Association. At the time of the meeting of the ninth International Medical Congress in Washington, he paid Toronto and Montreal a visit.

THE Rev. John Ward, who was Vicar of Stratford-on-Avon, from 1648 to 1679, kept a diary from which the following extracts are made: "Uppon a signe about Fleet Bridg this is written, 'Here lives Peter de la Roch and George Goslin, both which, and no other, are sworn operators to the King's teeth.' "There are several sorts of physicians, said one: first those can talk but doe nothing; secondly, that can doe but not talk, thirdly, some that can both doe and talk; fourthly, some that can neither doe nor talk, and these get most monie."

WHAT CAN I DO?

"What can I do that others have not done?
What can I think that others have not thought?
What can I teach that others have not taught?
What can I win that others have not won?
What is there left for me beneath the sun?
My labour seems so useless, all I try
I weary of before 'tis well begun;
I scorn to grovel, and I cannot fly."

"Hush! Hush! repining heart! there's One whose eye
Esteems each honest thought and act and word,
Noble as poet's songs or patriot's sword.
Be true to Him: He will not pass thee by,
He may not ask thee 'mid His stars to shine,
And yet He needeth thee, His work is thine."

Montreal. JOHN READE.