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DOMINION
DENTAL JOURNAL.

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Original Communications.

Uses for the Oxysulphate of Zinc.

By W. D. MILLER, Berlin.

The oxysulphate of zinc is a material which, as far as I have been able to ascertain, is not as extensively used as, in my opinion, it deserves to be. I personally make such constant and diversified use of it in my practice, and find it for certain purposes so superior to other materials that I am inclined to believe that a few notes concerning it might be of service to the readers of the DOMINION DENTAL JOURNAL who have not made a trial of the material.

The preparation which I make use of is known as Fletcher's Artificial Dentine. Recently other preparations of similar nature have been introduced here in Berlin. I am not acquainted with the preparations on the market in America.

The one I use consists of a white or yellowish-white powder, oxide of zinc, and a syrupy, opaque liquid, whose exact composition I am unable to give. As I have been informed by the manufacturer, "the artificial dentine is an oxysulphate in the same sense that the oxychlorides are oxychlorides; the hydrochloric acid in the basic compound is replaced by sulphuric acid, and it is really a basic sulphate of zinc with a small proportion of free oxide."

When mixed moderately thick it hardens quite rapidly, in fact as soon as it is in the cavity it is hard enough to undergo the necessary trimming. The time required for its setting can, however, be increased *ad libitum* by mixing it sufficiently thin. Like other preparations of its kind, it rapidly deteriorates in quality if any impurities obtain access to it, or if the bottles are not kept perfectly corked.

When fully hardened it has not quite the hardness of plaster of Paris, but is a little tougher. In positions where it is not affected by mastication, I have known it to last as long as two years, though it is solely for temporary purposes that I use or recommend it. It is practically non-irritant; a quantity of the material mixed, being taken upon the tongue, produces about the sensation of a half per cent. solution of carbolic acid. I use it in my private practice and at the dental institute of the University:

1. For capping exposed pulps. When the pulp has been fully prepared for capping I mix a small quantity of the cement to such a consistency that, when it is taken upon the point of an excavator, it does not flow off from it but still is sufficiently thin to hang down in the shape of a minute drop. If a drop of cement of this consistency a little larger than a pin head is brought into contact with the point of exposure, it spreads itself out over the surface of the pulp, adapting itself perfectly to its irregularities and forming a much more perfect covering than can be obtained with asbestos, pieces of paper, gutta percha or any other material which cannot be applied in a semi-fluid state; besides, what is of greatest importance, it may be applied without a trace of pressure.

Those who for certain cases favor an antiseptic capping may easily produce the desired action by incorporating the antiseptic into the capping material, though some substances interfere with the hardening. As soon as the cap has hardened which requires about two minutes (more if the cement was mixed very thin), the filling may be completed. If it is a doubtful case, I finish the operation with *oxysulphate* and wait three or four weeks. If it is a fresh exposure and the pulp healthy, I finish with *oxyphosphate.* If finally I have every reason to exclude the possibility of a failure, I place a layer of oxyphosphate, over the cap of oxysulphate, and complete the operation with a permanent filling material at once. The directions for use accompanying the material appear to me to

be fundamentally wrong; my manner of using it will, I am sure, give better results.

2. In the operation of perforating or removing hard fillings from pericementitic teeth, I have found the oxysulphate to be of the greatest service. How painful if not unbearable for the patient, and how trying to the operator it is to operate upon a tooth which may be so sensitive that the slightest touch causes excruciating pain, we all know, and yet this operation may be made almost or quite painless. Dry the tooth to be operated upon as well as the adjoining tooth, on each side, with bibulous paper, then mix a large quantity of the oxysulphate, say half a thimble full, and plaster it with a broad spatula upon the lingual as well as labial surface of the three teeth, slightly pressing upon it so as to force it between the teeth. It hardens sufficiently in one or two minutes to fix the tooth immovably between the adjoining teeth. The ease with which the operation of removing the filling may then be performed is often a matter of surprise, both to patient and operator. In these cases plaster of Paris may take the place of oxysulphate.

3. In like manner oxysulphate or plaster of Paris, may be used during the operation of filling with gold, for fixing teeth which have become loosened, no matter by what process.

4. I also sometimes make use of the oxysulphate for pressing the gums away from the cervical margin of cavities, particularly in wedgeshaped cavities where cotton cannot be made to hold. Dry the cavity thoroughly and fill it with cement mixed rather thick, and when it has begun to harden press upon it with a pledget of cotton. The cement spreads out and forces the gums back at the margin of the cavity.

5. For enclosing applications on cotton of whatever nature I have found the oxysulphate vastly superior to gutta percha. Whether I have to make an application to an inflamed pulp, for the purpose of sterilizing the cavity, or disinfecting a root canal or devitalizing a pulp, or obtunding sensitive dentine, I almost invariably cover it with the oxysulphate. It is a very difficult matter to cover a pledget of cotton, well saturated with liquid, with gutta percha, particularly in a shallow cavity, but it may be very easily accomplished with oxysulphate. The necessary experience in the manipulation of the material is best acquired by making a

few fillings out of the mouth. It is particularly in making applications of arsenic to the dental pulp that the manner of enclosing them has great advantages, as it admits of keeping a local anæsthetic constantly in contact with the pulp and avoids the pressure which is too frequently a cause of severe pain following such applications.

6. I now and then use the oxysulphate for fixing metallic caps over the teeth in regulating appliances where they are to remain but a short time, also for temporarily setting pivot teeth. In short, any one who becomes acquainted with the material will find it so useful that he will wonder how he was ever able to get along without it.

Dental Dots.

By D. V. BEACOCK, Brockville, Ont.

In filling a cavity in the anterior part of a lower molar that is well down under the gum, the bicuspid missing, it is sometimes difficult to keep the rubber down even when a clamp is used. Take a thin piece of metal, German silver or Taggart tin, fit it neatly between the teeth. When the rubber is adjusted, press this firmly down; it will carry the rubber below the edge of the cavity and hold it there.

I once heard Prof. Mayr say at a dental meeting, that it had been the peculiar treatment of dentists to recommend and give phosphate of lime and phosphate food in general, with the idea of supplying that which was wanting—the lime salts in the teeth. Said he: You may pack such children in a lime barrel, you can feed them lime stew and lime ash without effect, for their teeth will not take up a particle more. The lime has to be introduced through the proper channels and in proper form. The digestive department is just as full of red tape as that of any Government. All its supplies have to go a certain regulated course, without which they are not accepted.

A small sized wooden screw, screwed into the root of a tooth, answers well for packing gutta percha or composition around; when we want to force the gum out of the way, leave it two or

three days. The head of the screw serves to hold the material in place; no danger of it coming out when once set.

Dr. Eleazer Parmley says that the first gold filling he ever saw was in 1815, and it was put in by Dr. Wait, of London, England.

An old lady remarked to me the other day, "Oh, dear! our teeth are a trouble when they are coming, a trouble when they are here, and a trouble when they gone, very like our children, in this respect."

Artificial teeth may serve very well for mastication, yet as in speech or expression, which depends on colour, size, position and relative arrangement, may be very defective in other respects. Temperament, complexion, contour, and general cast of countenance should all be considered in the construction of a proper set of artificial teeth, to constitute a successful work of art.

Dentistry relies more upon common sense views and practice than any other profession. The physician never knows whether his medicine or nature has done the work. The lawyer says there never was a law made that could not be evaded. But the dentist's work, like the poor, is ever present with us. We can see our work that has been done years ago, and know the why and the wherefore if we will.

Cheoplasty was invented by Dr. A. M. Blandy, of Baltimore, in 1854.

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

Instead of having your flask screwed—made stationary to the bench, have it so fixed that it can be lifted off and on over the screws, that is, made portable. This can be done by simply filing the heads of the screws. When you put in your flask, both it and the press can be lifted off and set in the boiler or heater, and put on its stand again and screwed down without any handling or using cloths. To keep the flask out of the water while vulcanizing, use part of an old mattress spring or coiled wire strong enough to hold the flask above the water.

There are said to be no less than twelve manufactories of artificial teeth in the United States, which make 10,000,000 of these useful articles per annum.

We have new departures, old departures, in fact all sorts of departures are now in vogue; the new arrogantly scoffing at the

old, the old, sneering at the new, and still both of them blending and combining in practice. Mallets and punching, annealed and unannealed gold, plastics, coppered and non-coppered amalgams, yet in spite of all the teeth go to the dogs, or to the forceps, and artificial teeth are the last refuge of the majority of dentists. There is yet a great deal to learn about teeth and their preservation. The older we grow and the more we learn from experience, the less we find we really do know. We occasionally see a young dentist just fledged from college who really assumes to know it all.

Cotton waste holder, to make: Take a deep glass or porcelain box, such as a tooth-powder box. Cut two slits in the top of the metal screw cover, in the form of a cross, one inch or a little more in length; press down the four points into the box; the slits will catch the cotton and pull it off the plyers or excavator. By putting in a piece of sheet lead cemented to the bottom or a little shot to weight it, every dentist may make himself a very handy little receptacle for bits of waste cotton, bibulous paper, etc., without taking off with his fingers. It is always clean, easily made and self-acting.

Dr. Abbott says that he considers the preservation of exposed pulps one of the greatest achievements of modern dental surgery.

In 1850 there were only two kinds of base plates in use—silver for temporary and gold for permanent.

Copper amalgam is very useful for many things in dentistry, besides filling teeth. It may be used for fastening a tooth on a rubber plate, making a full crown for back molars, making matrices for striking up a gold cusp or articulating surface for a gold crown, strengthening or reinforcing plaster models, cusps or any part of the gums or root of a tooth, or a whole tooth may be readily built up in the impression before running the plaster into it. This is often very useful when it is necessary to fit a gold or platinum band round a tooth or root, as the amalgam tooth is quite hard enough to burnish on, while the plaster tooth is frail and would be broken. The amalgam can all be saved and used over and over again.

Dr. Putnam claims to have been the first dentist to ever use a vulcanizer in making teeth.

Statistics show that there are more first molars lost than bicuspids. Dentists then as a rule should take out the molar in preference to a bicuspid, except in extreme cases.

To avoid breaking blocks, when vulcanizing, grind the tops square and don't let the rubber come over them ; in waxing up the case scrape off the wax level with the face of gum, then when the rubber shrinks it will draw over the square ground surface without cracking the thin porcelain. I learned this from casting aluminum, the smallest overlap anywhere, when using this metal, will result in fracture. Another caution is not to have any air-bubbles in the plaster at the back of the gum, and be careful when pressing the flasks together to give the rubber sufficient time to spread and adapt itself over the matrix left by the wax. Broken blocks are the result of either carelessness or ignorance.

Registering Operations.

By H. H. WAY, D.D.S., L.D.S., St. Thomas, Ont.

Under the heading of "An Improved Dental Ledger," in the December *Quarterly Circular*, Dr. Bryan enumerates some of the advantages of making "a simple and full record of daily operations for regular patients."

From the very first of my practice, eighteen years ago, I began recording but the date and location of all fillings inserted, and from time to time improved thereon, until now, when I find it of more importance than ever.

It is not alone a matter of self-protection against designing persons, as to the doing of our own or others' work over again without recompense, but some system of registered operations becomes, in due time, still another means of educating ourselves up in any branch of work we like.

Probably most of those already in full practice will think of the extra time required, but if they will but consider that it is for the future—is very quickly noted down with pencil for the time being—the habit will be readily formed, and becomes a portion of the operation itself. We come to love our chosen profession the more when striving to improve on our past labors, but to do this we must have facilities of referring back in any given instance.

I dare say all dentists have at times felt the lack of some past record in particular cases that come up again for attention, and

would give much to again refer to even brief facts of the case, but are now forgotten. They cannot be purchased with money, or had of anyone else.

These considerations are especially commended to young men starting out in their careers; at the very outstart to begin with some form of keeping track of past work.

It will be apparent that the system below given is yet open to improvement; it is simply offered as one now in use.

An appointment book, journal and ledger are needed.

For the first-named, I much prefer one with three days to a page, so that as it lays open before me, the full week's work is in view. For compactness of space, I like best one having for each day a straight and narrow illustration of the teeth, much as a double full set of plain teeth lay upon the wax. The various operations are accurately outlined on these diagrams, and each numbered to tally with the hour opposite the patient's name below; a note may be also made of amount charged.

If so preferred, the journal can be dispensed with, and at leisure the important work posted into the registering ledger, using, of course, an independent set of numerals for each patient.

By having a good rubber stamp diagram and red ink pad, two or more individual accounts, as needed to a page, may be had, thus utilizing ledger space, and ledgers fill up only too soon. When desiring to keep trace of certain peculiarities of a case, a numbered note is made on fly-leaf at back of the ledger itself for future convenience. These I have found come to be valuable in future developments that occur. To curtail amount of writing, any given note answers for all like cases. Even by this device to shorten, I have, in the space of six years, made more than 200 distinct notes, and still find occasion to add others now and then. Be careful to preserve all old appointment books, for they too will be wanted, as you will find.

But it is preferable to have the journal for all entries, and I believe it will stand in the courts over that of any appointment book record; and again, it obviates the need alone of a separate book of daily cash receipts. In this connection, however, a careful record of office disbursements should not be forgotten for balancing up at end of each year. You must know at all times how the net receipts are running, and watch them as you would the ther-

mometer for the weather. This, too, can be made a feature of considerable interest, by arranging the names of the months down the left side of a broad sheet, and the years across the top margin, and then at the close of each month entering the cash receipts thereon. After several full years are filled up, begin at the bottom of the first year and trace a red line, representing that year's total amount, on through the succeeding years—you are ever pleased to see it rising through the record of months. Then, by-and-bye, your aspirations are in a degree chilled when the same line drops a little, as it sometimes must, in succeeding years. However, it is an object lesson, which we are the most interested in.

I feel that there is ample room for a further development in dental book-keeping, and believe it worthy of still further thought than has yet been given it.

The Cast Filling.

By OLIVER MARTIN, L.D.S., Ottawa, Ont.

For some reasons the porcelain filling has been called plastic filling. It appears more reasonable to call it porcelain filling, as a plastic filling has reference to soft substances, when placed in the teeth, as the many amalgams in use. The porcelain filling is cast, or moulded, baked before it is placed in the cavity; the process has been explained, but I wish to simplify it, so as to place it in the laboratory of every dentist. When you have not the material for the purpose, take a piece of fine earthen-ware, such as a cup, grind it as fine as flour between two flat-irons, make a paste with water. You now wish to test the strength of your porcelain, dry it on your stove, take a clean crucible of small size; this is your furnace. If you place it inside of a sheet-iron cylinder it will retain the heat better. Place the crucible on its side in the cylinder, which is also on its side, place the porcelain in the crucible; being on its side, gives you surface enough for three or four fillings, then use the blow-pipe; in a few moments your filling is brought to a red heat, which is sufficient to unite the particles together. Care should be taken not to bring the filling to a white heat, as it renders it brittle. If the stone-ware is of sufficient strength no other ingredient will be necessary, but should it prove otherways, use one-third of ground

glass, mix the two flours well together in the dry state; this will give you a strong porcelain when baked, but not fused. The process of moulding and casting is so well-known that it needs no repetition; if your plaster mould is not sufficiently strong to press you paste firmly together, make a mould of zinc, as much depends on the firmness of your paste to make strong porcelain. The adjustment of a porcelain filling should be done before it is cemented in the tooth, by placing it in position and testing the articulation of its contour, as it may project too much beyond the walls of the cavity. Here skilful grinding comes into play, as a want of judgment will spoil the filling. It requires skill and practice to fill a cavity with porcelain, so as to appear like the tooth. The coloring of the flour with chrome yellow and other unfusable earths of different shades, is more difficult of adjustment than the cast gold filling. The gold can be malletted with a fine point plugger after it is secured in the cavity so as to spread the surface of the gold over the cement (provided twenty-two gold is used), to the walls of the cavity. This cannot be done with porcelain. Why? Greater nicety of adjustment is required. The use of a screw to retain the filling in position is superior to the pin cemented, as it binds it to the walls of the cavity with a pressure that does not give away. When you mould your porcelain filling, place a pin in position in the mould the size the screw is intended to be; this will be according to the size of the filling, so as not to weaken it. When the paste is dry, draw the pin out gently, with a slight turning motion. This being successful, the filling nicely adjusted in the cavity (we pass over the baking, etc.), take a drill that will pass in the hole of the filling freely, and drill into the tooth for a few threads of the screw. The length of the screw is taken, take a gold wire the size of your drill, drill a hole into a small piece of thick gold plate and solder your wire to it, this will form a nice head to your screw when finished. Be sure the screw does not bind in the hole of the hard filling, else there is danger of forcing the filling in two. When the screw has been cut the length to bind the filling firmly, place a washer of two or three folds of gold foil to cushion the head of the screw on the filling, this is afterwards trimmed. A tooth can be filled with soft gold foil that will fill every pit of the cavity. When the porcelain filling is pressed in and held by the screw, allowing the foil to project beyond the walls for a good finish, very nice work can

be done in this way, still I would give gold the preference for small size fillings. A large porcelain filling can be managed very well, like a crown, but gold will allow you more manipulation. Placing porcelain crowns on teeth is not new, it is the same as the pivot tooth which has been in use many years, the improvements that have been made are the placing of crowns on any tooth, or roots, partial or entire. Harris speaks of porcelain crowns, if I remember correctly, twelve years ago; but we have, in the dental profession, many young practitioners who are apt to grasp at every new, and overlook many important and good points of the past, unless they are brought forward occasionally in the journals of the day. Apart from this a few steps in advance are made as regards the method of manipulation, material used, that proves itself superior to an old method. By simplifying it brings it anew before the dentists of the day, and is not a mere repetition.

Since writing, I received a letter from Dr. C. H. Land, of Detroit, who claims to be the originator of the system of casting filling crowns, from all kinds of material. He may be what he states, I will not argue this point; but, if so, he does not appear to thank me for advertising his claim, and bringing it before the dentists of Canada who may not have seen his pamphlet. Still there are points in what has been stated that may be of benefit to Dr. Land, if it was nothing else than the use of plumbago as a mould for fine castings, as it is far superior to sand, as its atoms are flat, while those of sand are round and cannot take as fine an impression, nor will it pack as closely. To use plumbago for the zinc, will be found much superior to sand. I stated that a little plaster would make the mould stronger, but it is not absolutely necessary, if you use a flask. The finest castings can be made with plumbago, and it is capable of being used over and over again, by crushing and sifting afterwards.

The Cast Crowns, and the Swedged or Capped Crowns.

To continue these remarks on this style of work may give some new ideas. If not altogether original there are always a few points in advance, what the dentists are looking for. We cannot speak of a method for saving teeth or to supply their loss without a repetition of an old subject, but to speak of it is to keep it young. There is no doubt that the cast crown is superior to the cap, in gold work,

when a root is projecting a few lines above the gums. The cap is made to fit round it like a clasp, and the cement fills the imperfect adaptation of the two hard bodies. This can be accomplished with the cast crown when an impression is taken of the root, and a cast from that impression. The adaptation of these two hard bodies is more perfect than can be produced by swedging, owing to the spring in the gold plate. But a gold crown of solid gold is expensive, and the appearance of gold in the mouth is liked by the majority of people; they would not like the appearance of tin if it were as good. For this reason the dentist is obliged to conform himself to the pocket and taste of his patient. The cap has become very popular and I believe the majority of dentists practise it. There is a difficulty in swedging a cap an inch long by a quarter of an inch in diameter to form a bicuspid, and even a molar is difficult to swedge from one plate of gold. To do this the gold requires to be very fine, like the No. 1 gold used as a plate for finishing fillings. A little heavier plate can be used with this gold. An incisor cap can be swedged from one piece of plate ; by annealling frequently, it will stretch without breaking. For durability a cutting edge cap can be stamped from the same, dry and soldered ; this makes a very nice piece of work. When the gold is not as fine the size of your tooth model is taken and a ferrule is made a little smaller than the model and soldered. The cap is afterwards soldered on the ferrule, the edge of the cap being trimmed to the ferrule, and the solder finished on the ferrule, it is ready for the swedge, being careful to anneal frequently and not to stamp at one great blow, but by gradual taps. In this manner the form of a gold tooth can be produced. The die can be made of cast iron, if the zinc will not stand the cutting edge of the incisor. In a crucible place small pieces of iron ; when melted add one-half of iron pyrites, this will run very fine and makes a good die. Place in the sand with a ring, pour zinc round it to give it weight. The concave die can be made of zinc or type metal. With skill a nicely formed tooth from the impression, and strength can be gained by placing a wire in the impression which is held by the plaster, and will hold the additional plaster that is to be formed as a tooth. The filling of the cap tooth with the white cements is very good, but to pack it with rubber and pressing the soft rubber on the cast of the root, and vulcanizing it there, gives a perfect adaptation and

a stronger tooth. The advantage of this packing is that holes can be drilled into the hard rubber and pins screwed into it, they can be cemented to the roots. The wire pins should not be too large, but so they will bend with the form of the canal. They will hold the crown firmer by conforming themselves into the shape of the root canal than if the root canals are drilled straight to receive a straight pin, and the root is not weakened. As before stated, a porcelain crown is very natural, but it is delicate; this makes it difficult to control. Many are broken when on the point of finish, and the dentist is discouraged. A method that will overcome this difficulty, is to cast your tooth of iron; iron will melt in the crucible as readily as fine gold, and let it be understood that there is no metal more wholesome in the mouth than iron; any decomposition of the iron in the mouth strengthens the blood. That a small ball of iron held in the mouth from day to day for a time, the weak person will gain strength. These remarks are made on account of the oversight that might be made as regards iron in the mouth. We will say your iron tooth is cast, the holes drilled for the pins, it is all fitted, it has been tried in its position in the mouth, the form is satisfactory, it is now ready for the enamel. Melt glass in a clean crusible; when melted add one-half the quantity of glass used of cobalt, this will give you a beautiful enamel that can be tinted with any metallic oxyde. When all is ready, the enamel in the fused state in the crucible, dip your iron crown into it, and you will have an iron tooth that will be as natural as any porcelain tooth, with all the strength the dentist can desire, that can be drilled into, without danger of breaking, for pins and screws to hold it in position. The thickness of the enamel can be produced by repeated dipping.

Legislation.

Funny Legislation.

Reported by H. JACKSON, Quebec.

The following is the last specimen of the sort of people with whom the Dental Board of Quebec has had occasionally to deal;

and it may be said, that if constant "practice" in litigation and dental legislation were to qualify men to practise law, some of the members of the Quebec Dental Board would receive the legal degree.

PRIVATE BILL.

"An Act authorizing Didier Garneau, student of dentistry, to practise in the Province of Quebec by shortening the period of his term of study and indenture for reason of his advanced age and previous experience.

Whereas Didier Garneau, of the city of Montreal, has, by his petition, represented that for the most part of the last nine years he has studied and practised dental surgery, and that having passed the matriculation examination required before entering upon the study of dentistry and that having entered upon the study he was indentured, and made the study required by the dental association during the first half of his indenture, for which he holds a diploma from the School of Medicine and Surgery of Montreal, and that the present bill has been approved by the council or board of dentists;

And whereas it is expedient to grant his said petition; Therefore, Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows:

1. The Dental Association of the Province of Quebec is hereby authorized, through its proper officers to grant the said Didier Garneau a certificate as a licentiate dental surgeon of this Province, admitting him as a member of the said dental association and to all the rights and privileges enjoyed by the members thereof.

Should the said association refuse or neglect to deliver to the said Didier Garneau, within one month after demand had been duly made for such certificate, then and in that case the said Didier Garneau may thereafter practise dental surgery in the Province of Quebec as fully and as legally as if he was a member of such dental association.

2. The present Act shall not effect pending cases and shall come into force on the day of its sanction."

Every possible misrepresentation was made by the applicant to the press, and to every individual member of the Legislature; the ingenious party settled in Quebec city for the express purpose of lobbying; he had printed statements circulated to the members, and had induced a large number of respectable physicians of Montreal to sign his petition to the Legislature to be made a dentist by Act of Parliament. One of his several attorneys offered a bet of fifty dollars to one that the Private Bill would be secured.

The Dental Board issued in English and French a counter-

petition to the Private Bills committee and to the Legislature, and Dr. Beers, the President of the Board; Dr. Ed. Casgrain, of Quebec, Vice-President, and Dr. S. Globensky, Treasurer, went to Quebec, and found, as usual, that the members had been deluged with false statements. Drs. Casgrain and Globensky used their persuasive powers and experience with the French members and astonished them by the extent of the petitioner Garneau's misrepresentations.

When the Bill came before the committee, the attorney of the Board briefly introduced Dr. Beers, who, in eight minutes demolished the prospects of the petitioner by producing proof,

1. That for most of the "nine years" claimed, the party had been a paid employee in two commercial firms, and an advertising agent of four different newspapers!

2. The indenture proof that of the four years' studentship required, the party had only passed one year!

3. That the School of Medicine and Surgery of Montreal had not granted him a "diploma," but simply the ordinary tickets for one course of lectures on anatomy, physiology, chemistry and materia medica, and that even the examination for such was made special and not in the regular form!

4. That the Bill was not "approved by the Board of Dentists!"

Dr. Beers produced certified and sealed proofs of these and other facts, and moreover, copies of two convictions against the party before the Police Court for practising illegally!

"Do you mean to say," inquired Attorney-General Casgrain of the President of the Board, "that these statements of Mr. Garneau in his Bill are false, that he has not the approval of the Board, etc.?" "I mean to say," was the reply, "that they are deliberate and premeditated falsehoods!"

"Is Mr. Garneau present?" asked Mr. Cook, M.P.P. The gentleman arose with a face as bland as if a seraph sat on each shoulder. "Mr. Garneau, is it possible that your statements in your Bill about having the approval of the Board are not true?" said Mr. Cook. "Well," responded this specimen of truth-telling, "*they are not true*, but I had to put them in my Bill to get them before the Legislature!"

Nobody called him a truth-teller. But the committee unanimously and indignantly threw out the Bill, without waiting to hear the attorney of the Board argue the distinctively legal points of the question.

The demand for incessant watchfulness must make the position of a member of the Quebec Board no sinecure, and it can be no personal pleasure to the officials to play the role of detectives, prosecutors and examiners all in one. It is however a duty most urgently demanded in Quebec more than in any other Province of the Dominion.

Ontario Dental Society.

The fourth annual meeting of the above society, will be held in the city of Toronto, Tuesday, Wednesday and Thursday, July 19th, 20th and 21st; convening promptly at two o'clock in the afternoon of the first day.

The programme in preparation promises to be one that should interest every progressive dentist in the province.

Essays will be read by the following well known members of the profession:

G. H. WEAGANT, L.D.S., Cornwall—Copper Amalgam.

M. G. MCELHINNEY, D.D.S., Ottawa—Electricity; its application to Dentistry.

W. GEO. BEERS, L.D.S., Montreal—Notes on Alveolar Abscess.

N. PEARSON, L.D.S., Toronto—A plea for the preservation of the natural teeth.

JAS. STIRTON, D.D.S., Guelph—Diagnosis of the diseases of the teeth.

C. N. JOHNSON, D.D.S., Chicago—Incidents of office practice.

Also, clinics have been arranged for demonstrating the more advanced operations.

You are notified at this early date, that you may regulate your time in advance.

The official programme will be issued about July 1st.

May 30th, 1892. R. G. MCLAUGHLIN, Secretary.

Selections.

The Dentist's Hygiene.

Read before the American Dental Society of Europe, at Heidelberg, August, 1891.

By E. DE TREY, D.D.S., Basel, Switzerland.

GENTLEMEN,—I do not remember meeting with any treatise bearing directly on the subject of the *dentist's own hygiene*, though there are several bearing upon dental hygiene. This is certainly a very important question. The loss of health too often incurred by the long-continued practice of dentistry is a sad proof of the necessity of this article. The dentist must keep his health for his own sake and that of his clients'. Operating from day to day produces a heavy strain on the vital forces, and induces great nervous tension in the operator.

What a pity to see a man practising his art under unfavorable conditions!

The digestive and respiratory organs suffer from the abnormal position of the body ; the nervous system continually strained, like the cord of a bent bow, ceases at last to perform its functions, and finally the operator tires of his vocation, while his work loses its former excellence.

It is only by wisely regulating the details of his life that the practitioner can attain clear and intelligent conceptions, rapid and easy execution, as well as find pleasure in the performance of his duties. Long is the list of men engaged in intellectual or manual pursuits who, by neglecting the laws of hygiene, have seen their strength decline, and, cut down prematurely, they have not fulfilled the hopes entertained of them, nor furnished that career which they themselves had traced out.

This abstract is offered only to the serious members of our profession, and not to those whose ignorance and incapacity lower and degrade it to the level of charlatanism. I shall attempt to perform my task as well as I can, and as far as an experience of twenty-three years will enable me.

To practise dentistry it is necessary to have good health and a strong constitution, plenty of muscular force, and an active, nervous temperament, because a phlegmatic man can never make a good operator. By means of hygiene, it is not only possible to keep one's self up to the mark, but also to make up for one's deficiencies, in the one case by a careful diet and healthy habits, and in the other by a painstaking and methodical manner of operating.

The questions of situation, light, ventilation, and heating are all important ones to the dentist's health. Considering that he has to pass a great part of his time in-doors, a gay and sunny apartment will have a beneficial effect on his character. The operating-room must be so separated from the waiting-room that the cries, groans, or conversation of the patient cannot be overheard. The proximity of the two would distract the operator, and increase his nervous tension, which is bad for all concerned.

The laboratory must also be at some distance from the operating-room, without being out of reach. An equable temperature must reign in the different rooms, because the operator is likely to cool down quickly after heavy work. The temperature ought to be about 20° C. He who works in-doors requires a higher temperature than he who works out of doors ; the latter takes more exercise, and the natural heat thus developed is increased by more abundant feeding. On the other hand, overheated air draws the blood to the brain, where it is always attracted by intellectual effort. The temperature must be constant, else the operator, absorbed in his work, may not notice its variations. The operating-chair should not be too near the fire. Moreover, as much as possible, let the windows remain open, as fresh air is highly beneficial to health. An open chimney with a wood fire is best in the oper-

ating-room, because this system constantly renews the air; a stove will do for the rest of the apartment. A northern light is best for the sight, on account of its steadiness; and western light is less blinding than an eastern one. The most valuable operating is done in the morning hours, when the body has been refreshed with sleep. A southern light is bad on account of its unsteadiness and the heat from the sun's rays. If the light is reverberated by a sheet of water below the window it becomes very vacillating. A blind working upward will greatly lessen this evil, which is very prejudicial to the sight.

The dentist practising in a dark street, or in a misty country such as England, will find a white blind working from below upward very useful.

In choosing an operating-room, attention must be given to the size, and especially to the height of the windows, as well as to the size of the room, which ought to be spacious. It is easy to understand that plenty of air and light conduce to better work than a restricted amount of these.

A continual subject of discussion is the point whether the dentist's residence should be at or away from the spot of his labors. The author has tried both plans. Keeping up separate apartments is expensive, but a counterbalancing benefit is the necessity of walking to and fro, and thus getting needful exercise and a change of ideas. The practitioner who simply leaves his operating-room to pass into an adjoining one for his meals, is liable to lose his appetite, get enervated and cross, and his food will not profit him as it should. If he be not forced to take out-door exercise, he will often become neglectful of it, and the less he takes, the less he will wish to take. Patients knowing that a man resides where he practises will often insist on seeing him just for a moment at undue times and in spite of orders against their admission. The combination of residence and office is useful for saving time, for easier work and study during the winter evenings. On the other hand, the dentist is thus more easily distracted by the ties of family life. All things considered, the author is of opinion that the advantages of enforced exercise ought to overrule all other consideration. Great cleanliness must reign all over the apartment. The laboratory should have a chimney to carry off all acid and vulcanizing smells and vapors, which rust and corrode metal substances lying around. For the same reason, the apartment must be well ventilated morning and evening. In short, he who takes pride and pleasure in his calling will have an inviting, comfortable, and even stylish interior, so as to please clients, and even draw compliments from them.

The operator must be very careful about his personal appearance; he must have a special working-coat or jacket, to avoid carrying with him tobacco and other odors. A white, easy-fitting garment is desirable. In winter a warm Jæger coat is practical,

though the best thing is white cloth or smooth silk, which both look and feel clean and neat. Black coats easily become greasy by contact with the patient's hair, or soiled by the cosmetics which ladies sometimes use.

It is difficult to lay too much stress on these niceties, which are much appreciated by the better class of clients, and the observance of which tends to build a good practice. Footwear must be soft and warm in winter, light and fresh in summer; special pairs being kept for exclusive use in the dental office. A low shoe of good calf, flannel, or fur, lined, is best in cold weather. Prolonged standing is fatiguing, therefore the dentist should have his feet easy and comfortable. A warm foot-bath after the day's work is over is often beneficial, for it promotes the circulation and relaxes the nerves Intellectual effort draws the blood to the head, and the feet get cold in consequence, a thing to be avoided, as warm feet and a coo head insure good digestion.

Those who perspire freely from the feet should change socks once or twice a day. The writer would here remark that he has known two cases in which, perspiration having been artificially stopped, a dangerous illness was the result, followed by death. Elastic boots are apt to stop circulation, but low shoes allow the escape of heat and moisture, and are not conducive to cold feet.

The old saying of warm feet, cool head, and loose waist is to be remembered and practised. The neck also should be free, without a high or narrow collar. The pressure of a hard collar on the veins of the neck during the various flections of the head brings on congestion of the brain ; and this is very bad in the case of thick-necked men with apoplectic tendencies. A fine white flannel, with loose silk tie, would be best, if etiquette allowed it.

A dentist must have perfectly clean and well-kept hands, with nails not too long. Patients have complained to us of having been scratched by too long nails, and one lovely client made us once pare our nails on the spot. Yet it is necessary to keep those of the thumb and forefinger long enough to pick up quickly the various little implements in daily use. Another point is, that an operator should not in general use too highly scented soap ; in fact, exceptional cases apart, scent of any kind is out of place. The hands should be washed in the patient's presence, and every time the dentist is called out of his room.

When hands and arms begin to feel nervous twitchings, the best thing is to plunge them up to the elbow in lukewarm water. Should there be tension, congestion, or weariness of the brain, a cold bath will act very well. The handling of steel instruments produces horny fingers, which lose their tactile sensibility. To regain this, rub the fingers on pumice-stone, without taking off too much skin, as a certain amount of hardness is necessary.

Above all, the dentist's own mouth must be in a fit and proper

condition; a bad breath is sufficient to drive away patients. There are means of rapidly sweetening the breath, but they are unwholesome to the stomach. Here are a few useful ones: Chew a slice of lemon with the rind on; this will freshen the breath for a fairly long time. The smell of garlic disappears by chewing parsley and swallowing its juice. A few drops of "hypochloride of soda" (liqueur de Labarraque) in half a tumbler of water constitute an effective and powerful deodorizer. The too frequent use of aromatic extracts, such as catechu, cloves, peppermint, etc., may injure the stomach. Catechu, for example, is an astringent which contracts the walls of the stomach, often producing cramps the origin of which is unsuspected. Cloves cauterize the mucous membrane, and deprive it of its smoothness. Generally speaking, all these substances injure the sense of taste. Chewed coffee-beans adhere to the lining of the stomach in noxious deposits. Coffee is an excellent antidote against alkaloids; a spoonful will mask their smell and annul their effects, used internally or as a gargle. Coffee and milk for breakfast is nutritious, laxative and disinfectant.

The posture of the body whilst operating, as will be shown further on, has considerable influence on the health. It is rare to find a dentist who knows how to place his patient in the chair so as to facilitate his own work and avoid mutual torture. While possessing all necessary means for working with comfort to themselves, why will not dentists take the trouble to put their patients in a position easy for both parties, instead of going through a sort of gymnastics hurtful to the eyes, lungs, and stomach? The right eye of a dentist who does much gold-filling, after fixing the same brilliant spot for hours, gets tired and becomes weak long before the left one. Deviation of the visual rays is an affection which almost always affects the right eye, and is caused by the ocular globe being twisted away from its normal position, when some muscles are overstrained and others relaxed; this habit in time dims and weakens the vision. The best and simplest way to avoid this trouble is to so place the patient in the chair as to bring all available light on the point of operation, and to look at it in a straight line, and not from a slanting direction. Also, one must learn to operate on both sides of the patient, and from behind as well as in front. By means of these different positions the visual rays enter squarely into the eye in its normal and unstrained position, and not sideways, and both eyes work equally. These methods of operating are soon learned, and their advantage quickly perceived. Operators will do well to think of the means of preserving their eyesight while still young, before becoming slaves to spectacles. Their usage is a source of annoyance to the practitioner, because the patient's breath clouds them, causing loss of time in removing and wiping. A good magnifying-glass should always be at hand, to avoid straining the sight looking at small objects, such as burr-heads,

for instance. Blue glasses are good for softening glare and change of light. The means of bettering the sight when it begins to fail are numerous, but the simplest and best are rest and refreshing sleep, such as hygiene and exercise produce; reading at night, indulgence in alcohol and tobacco must be given up. Electric, petroleum, and all lamps with too powerful a glare are to be avoided; the old moderator lamps are the best. Few organs of the body are so sensitive to the diseases of the stomach as the eyes. Dimmed and vacillating vision, pain behind the eyeballs, watering eyes are almost always symptoms of a disordered stomach. Rose or chamomile water makes an excellent eyewash; an infusion of rosemary in good cognac brandy is good for frictions around the orbit, the brow, temples, and neck. As a rule, let us not turn night into day, but, returning to the ways of our forefathers, go to bed and rise early. They knew not the use of spectacles before old age, nor did they need the various exciting modern condiments.

In the course of numerous excursions in the Alps, the author has made some curious observations on the changes going on in the country at large. With the advent of coffee, sugar, spices, and alcohol in the most secluded valleys, the hitherto vigorous and healthy inhabitants have begun to loose their fine teeth and flowing hair. All sorts of infirmities, unknown before, have appeared among these hardy mountaineers. The author is quite convinced that this is due to alterations of the blood, brought about by exciting foods. Let us leave hot things to hot lands, and cling to what nature grows in our temperate zones. The first effect of these stimulants seems to be renewed life, vigor, and keenness, but their continued use brings in time prostration and even loss of health. Such is also the case with plants transferred from their own natural soil into a richer one. They thrive, increase in size and beauty, then droop and die away. Nervous diseases and folly count more victims nowadays than formerly in town or country, thanks to bodily and mental excitement and fast living. Let us work quietly day by day, not peering too far ahead into the future. Thus, money will be more slowly acquired, but the faculty of enjoying it in old age will be preserved. On hygiene depends the surety and suppleness of the hand, the clear vision of the eye, and on these does the dentist himself rely. Delicacy of touch is a gift, which can be developed, but not acquired; few possess it, and those who do should not imperil it by excess of any kind. It can be cultivated from infancy and maintained through life by manual exercises. This attribute can be unconsciously lost by excesses. The abuse of wines, spirits, and tobacco leads to that of narcotics, which doctors and dentists have within their reach. We cannot enough warn operators against being tempted to their use to soothe wearied nerves, for no human words can tell the sufferings to be encountered before the habit is broken. Unfortunately,

numbers of medical and dental men use these drugs themselves, though they forbid them to their patients. Here are the words of a specialist in nervous and mental diseases, Dr. Force, of Zurich: "How great a number of men are lost to science by the use of alcohol! Even what is called a moderate amount is sufficient in time to alter the tissues and weaken the mental faculties." Total abstinence is more profitable than simple temperance. If the thoughts and actions are not so quick, they are all the more reliable; fatigue and ailments have less hold on the total abstainer.

The strength and suppleness of the hand depend on that of the body. All exercises of sport and gymnastics, abundant in youth, more moderate in manhood, are a boon to the body. Combine these with hydrotherapeutics, and you have the secret of good health and good humor, wherewith to perform daily work easily and pleasantly.

Half an hour should be given every morning to bedroom gymnastics on the Swedish system, adding cold or tepid baths according to individual natures, or simply sponging the upper part of the body. These exercises must be done slowly, and in a measured way, not with rapid and unsystematic movements. To undergo a hydrotherapeutic cure in a first-class establishment is for a run-down and overworked dentist the best means of recovering health and condition. Unfortunately, these good establishments are by no means common, and we only know one, that of "Schœnbrunn," in the Canton of Zug, where the basis of the treatment consists in the avoidance of all stimulants, as alcohol, tea, coffee, pepper, spices, etc.

The dentist must not only exercise his arms and legs, but his wrists and fingers separately. It may happen that he who has not been in the habit of practising gymnastics from infancy may feel tired at first; the best plan is, then, to exercise for four or five minutes in the beginning, gradually increasing the length of the periods up to one-quarter of an hour. Frictions with rosemary and spirits strengthen and keep up the suppleness of the arms; not to mention that this old remedy is good for rheumatism. Finally, the best way to counteract the effects of a too sedentary life is to take all possible exercise between working hours.

What one should eat is a subject of some importance, and it is to be supposed that every one knows best what suits him, yet such is not the case. A fair meal after morning exercise is necessary to do four hours' work, and a light mid-day lunch is better than a full dinner, which makes one feel heavy and lazy. Owing to bodily fatigue and nervous tension, the dentist is at times liable to a sensation of weakness and loss of energy; this is due to a momentary lack of nourishing substances. Here Hygiene steps in and says, Stop and replenish the motor; or, in other words, take some light food, whereupon the sinking sensation will disappear. A drop of soup about ten o'clock, a cup of tea and a biscuit about four, is all

that is needed to revive the flagging energy of body and mind. The general appetite for regular meals will in no ways be injured by this habit, which is a national custom in several countries, chiefly in the North. This plan helps to avoid excess at any one time. For those men who are obliged to subject their bodies to postures which prevent the free play of the internal organs, frequent and spare meals will help to facilitate easy digestion. Plenty of milk is an excellent means of calming nervous irritation.

Sleep is the chief factor in general and dental well-being. Loss of sleep means loss of strength; no sleep, no work. By a hygienic mode of life the act of sleeping becomes a source of pleasure, a delicious close to the day's work.

To obtain deep, calm sleep, without dreams or nightmare, total abstinence, or, at least, a very limited use of alcoholic stimulants, must be the rule Less noxious but still powerful stimulants, such as tea and coffee, must be avoided as the night-hours draw on.

But contentment of mind comes not only from a hygienic life, but from a feeling of confidence in the future, and where this source of trustfulness is to be found, you all know. If I here enter the domain of moral and intellectual hygiene, it is because I have convinced myself of its power on the nervous functions. The sentiment of religious duties performed sincerely is an elixir without a rival, and an efficient soporific. There is the secret of a contented and happy life. As meals should take place with regularity, so should sleeping hours be regular.

We would utter a warning-cry as to the necessity of timely relaxation from continuous toil, to all those who are carried away by duty, love of work or money, and who labor on for years without taking the necessary holiday. As soon as the dentist takes stimulants to keep up his flagging strength, he is overstepping the limit and working too hard. Each practitioner has, according to his strength, a limited number of years before him. Therefore, let every one starting in the profession understand before it is too late that he must make his position more or less rapidly; for few vocations entail so much fatigue, wear and tear, as genuine and artistic dentistry.—*International Dental Journal, Philadelphia.*

On the Management of Patients.

A paper read before the Students' Society, Dental Hospital of London.

By GEORGE NORTHCROFT.

MR. PRESIDENT AND GENTLEMEN,—Although, sir, in your inaugural address you expressed a hope that you might hear really scientific papers read in this society, I fear I shall have to leave

that hope unfulfilled as far as I am concerned, for it was my misfortune to choose a subject before I had the pleasure of hearing that admirable address.

But although I cannot claim that my paper is strictly scientific, I hope it will be of such practical value as to provide for its lack of technicality.

Of course it goes without saying that every student trained here is fully alive to the importance of doing absolutely good work; no man can in the end expect to be successful who does not keep constantly before him the highest ideal of his profession; for, as Emerson says, "Our own safety lies in having lofty ideals, and in constant labor to secure their realization."

You may reply to this, "We do not want to labor for the realization of ideals, but for hard cash." I venture to think, if one works in this sordid spirit, the capacity for doing the best becomes atrophied, and eventually one loses even one's mess of pottage, for which has been bartered the standard of right.

Where would have been any chance of earning money in our profession to-day, had it not been for those noble men, who in former days worshipped ideals and freely gave their lives for Science?

I would not weary you, but I think, considering how absolutely our patients are in our hands, we ought to consider well our responsibility, not only to them, but to the best traditions of our profession. It lies with us, who are now students, whether in the next generation dentistry ranks equally with medicine, as a profession for gentlemen, or sinks to the level of a trade only to be practised by empirics and mountebanks. Personally, I am convinced—"how far high failure overleaps the bounds of low successes," and I hope however great my anxiety to make money, I shall never forget what I owe to myself as a gentleman and a member of the dental profession. But I am not here to-night to "magnify my office," but to discuss the management of patients.

Generally speaking, it is just as well to remember that, having finished the "demonstration" stage, we have also finished working on blocks of ivory, and when upstairs are working on human beings with tissues as sensitive, if sometimes not quite so clean, as our own.

If we lose sight of this when dealing with hospital patients, we shall find the Nemesis come home when we start practice for ourselves. A hospital patient has no choice but to grin and bear it, but a private patient finds a hundred doors eagerly opened to receive him, as Sairey Gamp said, "with love and tenderness."

But do not make the fatal mistake that gentleness, like a coat, can be put on and off as occasion requires. It should be the natural attribute of a man in our profession; when it is only veneer laid on for the sake of a fee, the inevitable result must be nervousness, awkwardness and bad work.

It is of infinite value to a dentist to have quick perceptions and

a keen insight into human nature, for patients are not *only* human beings, but individuals, and one must see in a flash the best way to deal with each case. A well-bred ease of manner is always reassuring. To preserve a solemn silence during the preliminary stages of the operation gives a funereal tone to the proceedings that forces the patient's heart into his boots.

On the other hand to keep up a jaunty and familiar chatter to a comparative stranger may inspire him with a disgust that will barely allow him to remain in his chair. It is most unseemly to be continually talking while our patients are in pain, and nothing is so aggravating, and makes a patient so little inclined to "suffer and be strong," as an operator who keeps up a ceaseless flow of irritating commonplaces, and asks questions, any reply to which the rubber effectually prevents.

"Nothing so tends to alienate friendship as a difference of taste in jokes;" and it is possible that a dentist, while imagining himself particularly agreeable or particularly witty, may be sowing in the patient's mind seeds of fatal distrust in his conscientiousness and skill.

Cases may be easily recalled where men of the highest position in our ranks, from their grasp of professional technique, have made the most unfortunate failures from want of *savoir faire*. The converse of this is also to be met with; men, unhappily inferior operators, conduct immense practises and make large fortunes simply by trading on their accurate knowledge of human nature.

The best way to secure a patient's confidence, that element indispensable to success, is to be perfectly natural. Let him see that you know what you are about, but do not think it necessary to give verbal information on that point. If he believes in you it is unnecessary, if he does not it will only make him more suspicious. Explain the character of the operation simply and clearly as far as you think it wise to do so, for fear is more often caused by the anticipated severity of the operation than by actual physical pain; and patients who have confidence in their dentist often suffer more in the reception room than in the chair.

Garrick said, "A fellow feeling makes us wondrous kind," and if dentists were operated on a little more often themselves, they would sympathize much more with the patients under their care. Often a timely word of sympathy will enable a patient to endure bravely, and an assurance from the operator of knowledge of pain given, or a warning of pain to come, will help him to overcome difficulties that would be otherwise insurmountable.

In these days of antiseptic surgery little need be said on the great subject of cleanliness, but we must remember that the patient is very quick to detect and make mental note of the slightest blemish in this respect. I am sure, however, we should never so far forget ourselves or our profession as not to have spotless hands

and instruments, and the only plea for a dentist not doing his own mechanical work is that it ruins the look of his hands, and makes them feel harsh round the patient's mouth.

A word about dress may not be out of place here. It is generally supposed that a *gentleman's* dress is always suitable to the occasion—but I know of some members of our profession who, by appearing in the morning arrayed in evening dress have evoked from the surprised patient the query, "Am I addressing Mr.——?" doubting whether he had entered a dentist's consulting rooms or intruded upon a conjuror about to give a séance; or who, by wearing lounge coats or shooting jackets, create in the mind of the patient an uneasy suspicion that he has fallen into the hands of an amateur artist or a cockney sportsman, instead of into those of a man whose chief devotion is to his profession.

I *have* heard of men who in the surgery wear heavy boots with mud upon them, who bring in with them the odours of the stable, the smoking room or the bar, and whose cuffs and collars are certainly no advertisement for their laundress. But we hope that such occurrences are rather the exception than the rule, and that the recounter of them obtained, as Sheridan said of Mr. Dundas, "his facts from imagination."

Ever bearing in mind the influence of one's surroundings, it is very important to avoid so displaying our instruments and various appliances as to suggest either a chemist's shop or a torture chamber. We should endeavor to keep the atmosphere and surroundings free from suggesting the sufferings of the previous patient, avoiding as far as possible the use of strong smelling drugs, and removing from sight all soiled napkins and rubber. I think it wise to place our cabinets slightly behind the operating chair, and to abstain from the use of mirrors in front of the patients. It is at times very undesirable for our patients to observe our actions, which may be closely followed by the untimely reflection of a piece of glass. If medicine bottles are used on the bracket it is well to make it a rule to turn the label away from the patient. I have seen a patient actually grow nervous at the sight of a bottle labelled "Chloroform," and fearingly ask if she were about to be anæsthetized, when the unobservant operator had no thought beyond smoothing off a G. P. filling.

One cannot be too careful in practise to have one's surgery and waiting room suitably furnished, the appearance of quietly and harmoniously decorated rooms have a wonderfully soothing effect on patients of all temperaments. Neither should the rooms be too luxuriously furnished, for I have heard patients, when speaking of such houses, say that they knew the fees they pay are in direct ratio to the elegance of the appointments. One should not, however go too far to the other extreme, and let the rooms become shabby or show an absence of finish, for then the fact is borne in

on the patient's mind that the dentist cannot be doing a good business, and lacks patronage for want of skill.

Having now considered a few of the important qualifications and defects, the surroundings, both good and bad, that are to be observed in the general conduct of a dental practise, some words may be added on the management applied to individuals of differing age and sex.

Children are perhaps of all the most difficult patients to deal with, as their fear of the unknown and ignorance of the benefits to be derived in the future from the sufferings of the present, lead them to suppose that the pain inflicted is an unnecessary trial grievous to be borne. And an explanation and argument are beyond their mental range, it is only by firmness and great tact that the operator can make them submit to the sufferings they so resent. By raising such bogies as a life embittered by the horrors of dyspepsia, or the unhappiness resultant from a consciousness of an unsightly irregularity (which as years increase may be made the subject of ridicule), it is possible in some cases to influence the young. Promises of rides in the chair or a present of sweetmeats for "being good" may have the desired effect on children of a more sordid temperament.

Cases, however, there are with which only sternness of the most autocratic type will avail anything, but this course, resented alike by mothers and children, is most inadvisable except as a last resort.

The method *par excellence* is to gain the child's affection, and make him trust you. You have doubtless read, and with me admired, the unswerving faith that Porthos possessed in his friends. Have you not observed that its great attractiveness is that it is the ignorant trust of a child rather than the discerning confidence of a calculating man?

But while we make use of this trust for the child's own good, let us beware never to abuse it, for he who robs a child of one atom of his faith in human nature commits a crime more reprehensible than many severely punished by the law.

In dealing with male patients we should remember that to many, however wealthy, "time is money" just as much as it is to us, and too much attention cannot be given to the importance of punctuality if we desire to become successful practitioners.

The ten minutes or so which we carelessly let slip at the commencement of the day is never regained, but rather, like a snowball, gains in size as the hours pass by.

Punctuality may be formed into a habit by constant watchfulness, and by exercising it on our hospital patients we may lay the foundation of an attribute which in after life will prove invaluable.

Nor should we become so entirely absorbed in our profession as to take little more than a passing interest in the outside world. If a man endeavor to converse on a subject he does not understand,

or can only reply in monosyllables to subjects introduced by his patient, he not only suffers himself from that unpleasant sensation of inferiority, but forces his patient to regret having spoken.

By endeavoring to acquire a fund of general information, these mutual *contretemps* will be avoided, and while the works of our hands may be valued, the workings of our minds may not be despised.

The supposition that men are less sensitive to gentle treatment than women is entirely a delusion, as is ably pointed out by Professor Lombroso (in the *Fornightly Review* for this month), who, not content with claiming for them equal sensibility to pain, declares that he has proved by experiment that their sufferings under the dentist's hands are far more intense.

A good story is told of an American who in answer to the sympathetic enquiry of the dentist, "Am I giving you much pain?" replied, "I can stand the pain in my teeth, if you will kindly take the corner of your cuff out of my left eye."

It may have been the same operator who, when burnishing a gold filling was surprised to see large tears coursing down the cheeks of his small patient; on seeking an explanation of the woe which so harassed the youthful soul, he discovered that he was with the hand-piece pressing tightly the boy's lips against his teeth, and was himself the engine to what Sam Weller called "the fellar's waterworks."

In the management of the "eternal enigma," as a recent writer has termed the fair sex, there is so much both to do and to avoid, that I cannot attempt to treat of the subject fully to-night. But a few of the most important points it may be beneficial to touch on.

It is with this class of patients that a cultivated ease of manner and sympathetic bearing weigh so much; it is they who recommend a dentist for his good chair-side manner; it is they who judge of the work done by the bearing of the man who does it.

To be able to reassure a lady patient as soon as she enters the room is a great step gained, and a dentist who realizes this soon reaps the reward of his knowledge.

One of the greatest difficulties a dentist must study to overcome is so to hold his left arm round the patient's head as not to disarrange her hair. It is a thing to which, for obvious reasons, a lady strongly objects, and such awkward incidents as the following—which the relator informed me actually happened in his own practise—may occur.

His patient, a dignified aristocrat, happened at the time of her visit to be wearing a false plait, and in the movement of arm round her head he had the misfortune to detach this artificial appendage. The chagrin of both dentist and patient may be better imagined than described. He never saw her face again.

In the use of perfume in the surgery and on one's hands care

should be taken, not only in the selection of the scent, but in the quantity used. All ladies do not equally appreciate perfumes; to some the odour of scent is scarcely less objectionable than that of drugs.

For those who use such things, it will be found useful to keep a little face powder ready to hand. The rubber often leaves an unsightly redness about the corners of the mouth, and the thoughtful dentist who provides such small comforts is justly popular.

Much may be done by watching the patient's face. It generally betrays the clearest indication of pain received, and by studying it we may ascertain how far it is safe to go without evoking a remonstrance from the patient.

One rule should be zealously observed. Never surprise them. Sudden pain received without previous intimation, is by some treated almost as an insult, and frequently attributed to the ignorance or carelessness of the dentist.

In operations that are likely to prove tedious, painful and expensive, a little appeal to the patient's vanity will enable many ladies to bear a great deal that would without such a suggestion be deemed by them needless.

And now for a few words on those patients whom the young practitioner most dreads—those who are inclining to the sere and yellow leaf. The old are liable to look down on the fresh graduate as an inexperienced intruder, who does not know his business; to underrate his ability, and distrust his progressive inclination.

They annoy him with suggestions and advice; with recollections of what dentistry used to be in the dear old past, as well as sermons on what it should be to-day. There are two ways of dealing with such persons—divert their thoughts by talking of subjects foreign to dentistry, or allow *them* to do all the talking. Let them imagine that you are swayed by their opinion, if necessary even affect to submit your opinion to theirs, but while in appearance you receive advice, in reality follow your own opinion of what is right, never let your judgment be warped by anything the patient might say, for only by so doing can the best work be accomplished. The end will justify the means; the satisfaction of all parties will be realized.

Who knows what strong recommendation may not result from the propitiation of one cantankerous old maid, whilst the easy praises of those more highly favored by capricious Nature may pass unnoticed?

It must ever be the dentist's aim to "be all things to all men," and while we remember the first part of Cromwell's sage advice, and "put our trust in Providence," do not let us forget the important conclusion "*and* keep our powder dry."

Gentlemen, my paper draws to a close, and my pleasure is to thank you for listening so patiently to what I trust will serve as a fingerpost by the way to some, even if it proves a bone of conten-

tion to others. In self-defence I must claim for my paper that it covers such a wide area that it has been impossible to touch on every point, and I can only hope that between the errors of omission and commission there may be ample scope for an interesting discussion.—*Dental Record, London, Eng.*

Editorial.

Dental Societies.

Secretaries of societies in Canada will greatly oblige us by sending early notice of meetings to be held. We have received the following so far :—

1. *Eastern Ontario Dental Association.* 13th annual convention at Hotel Frontenac, Kingston, June 29 and 30, 8 p.m. The resident dentists have tendered the visitors a complimentary sail through the Thousand Isles, and members are asked to bring their wives and daughters with them. The mayor will give an address of welcome; there will be an address by Dr. C. A Martin, of Ottawa; Clinics on Aluminum applied to Dentistry, by Dr. Brace; on the advantages of Dr. Beacock's furnace in staining and gilding teeth, porcelain, etc., by Dr. Stackhouse; on Nitrous Oxide, by Dr. Steele, and no less than eleven papers on different subjects. Reduced rates on all railways from June 29 to July 4 inclusive.

2. *Ontario Dental Society.*

3. *American Dental Association.* 32nd annual session will be held at Niagara Falls, N.Y., commencing at 10 a.m., Tuesday, August 2.

Reviews.

Dental Jurisprudence. A treatise for dentists and lawyers, by Wm. F. REHFUSS, D.D.S. Published by the Wilmington Dental Manufacturing Co., 1413 Filbert St., Philadelphia, 1892. Cloth $2.50, sheep $3.50. 468 pages.

"The glorious uncertainty of the law" may have impelled old John Burton to swear at lawyers as "gowned vultures;" but after all, as Paul said to Timothy, "the law is good if a man use it

lawfully;" and unfortunately, the dental profession has its exposed features, involving the possibility of litigation of an unpleasant, if not of a serious, character, which ought to bring such a work as the above within the lines of dental education. The jurisprudence of dentistry has its applications in many directions, as was pointed out by Dr. Garrison in his contribution to "American System of Dentistry," yet it is doubtful if more than a few practitioners clearly understand their responsibilities to the law, as well as their rights. The subject is really a most important one, and Dr. Rehfuss has created for us a new branch in forensic dentistry, of which no practitioner can well afford to be ignorant. The contents of the work include the various technical liabilities as witnesses and experts, and specially inquires into the legal protection afforded by the degree of D.D.S.; malpractice; standard of skill varies according to the circumstances and localities; specialists, damages, poisoning, injuries and deaths due to anæsthesia, infection of diseases from unclean instruments, rape under anæsthesia, fees, book accounts, etc., etc. The appendix contains a history of dental legislation, and the statutes relating to the practice of dentistry in different countries. Undoubtedly, the curriculum of our colleges will now contain a course on Dental Jurisprudence. We commend the work highly to every practising dentist.

Doctorate Address, delivered by Prof. C. N. Johnson, to the graduating class of '92, Chicago College of Dental Surgery, March 22. An interesting address in which Dr. Johnson scarifies the increasing love of notoriety among a certain class of dentists whose watchword is, "anything to advertise," and who descend to the meanest depths to accomplish their "ambitions." The address is full of brotherly cheer and encouragement for men who aim and act honourably.

Preservation of the Teeth, by J. R. Irish, Trenton, Ont. A letter against the useless extraction of teeth.

1. Non-cohesive half cylinder and loop filling.

2. Articulation of the teeth. By Isaac B. Davenport, M.D., D.D.S., Paris, France. The former is a reprint from the *Cosmos*, the latter from the *International Dental Journal;* both extremely interesting.

Abstracts From The Journals.

Painless Extraction.

If you wish to remove a deciduous tooth and through fear the child will not permit it, slip a piece of rubber tubing over the crown down to the neck of the tooth, and in a few days the tooth

will be so loose that it can be extracted with the fingers. This is given upon the authority of Dr. W. H. Eames, and is certainly worth trying.

Dry Steam Vulcanizers.

Dr. Steele, in the *Items*, suggests a simple plan for converting an ordinary vulcanizer into a dry steam vulcanizer. From heavy sheet zinc he makes a basin-shaped dish about the depth of the flask and about one-fourth of an inch smaller in diameter than the inside of the boiler. This he perforates with holes for the escape of steam and places bottom side up in the boiler with a very little water. By placing the flask on top of the dish, he claims as good results can be obtained as from the use of many of the high priced vulcanizers.

A New Anæsthetic.

The *Ohio Journal of Dental Science* contains the following description of a new anæsthetic: "It is produced in Germany, its inventor being Prof. von Mering, Director of the Medical Polyclinic in Halle, who chose the name "Pental," owing to the circumstance that it contains five carbon atoms. It is very volatile and easily combustible. It can, it is said, be administered exactly like chloroform, and the quantity required each time need cost no more than 6d. Anæsthesia sets in after three or four minutes, rarely later. It is not deep but suffices to render small operations such as the extraction of teeth painless. It is neither accompanied nor followed by any unpleasant effects.

Reading Journals.

"We should not condemn journals because some of the articles are of little value. Much of the thought presented in journals is simply placed on trial, and that which my judgment or the individual judgment of the editor might condemn may prove to be valuable. Many of the better things in literature have been condemned at first reading by learned critics, and have afterwards been recognized by the world as models of thought and expression. Neither should we drop the reading of a journal because a number or two fails to interest us. The next number may contain a single article that will be worth a dozen years' subscription, besides compensation for much uninteresting reading. Anyone who fails to read the journals will be behind, not only in his thought, but also in his practice."—*Dr. Black in Dental Review.*