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DOMINION DENTAL JOURNAL.

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TORONTO, JULY, 1894.

No. 7.

Original Communications.

A Profitable Way to Dispose of Solder Scrap.

By R. E. SPARKS, M.D., D.D.S., Kingston, Ont.

Dealers cannot allow more than about two-thirds as much for solder scrap as they charge for—say 18k. solder. In crown and bridge work, solder scrap may be made as valuable as new solder. Clean all old backings and bits of plate having solder upon them, by dropping them into a bath of dilute sulphuric acid and boiling for a few minutes, or leave in the bath over night. Wash them in clean water. Hammer each piece quite thin and cut into small pieces, and put into a bottle or box for use. They answer every purpose where cusps are to be filled, or any place where bulk of solder is required. To use them, first flow some new solder upon the piece, then add the scrap. The application of heat will flow the solder contained in the scrap and fuse the whole mass together. Should the surface be rough, on account of the insufficiency of solder contained in the scrap, to cover the bits of plate contained in the same, add more solder.

CONVENIENT NERVE CANAL PLUGGERS.—An assortment of canal pluggers may be made by taking spent nerve brooches and removing any remaining barbs by running a fine file over them while they are held flat upon the bench. They are made smooth by rubbing them a few times with fine sandpaper. The point can be snipped off to any desired size. They can be handled with a nerve brooch carrier.

A CONVENIENT DENTAL INSTRUMENT.—A jeweller's pin vise, or wire holder, is a tool having a round wooden handle and a clutch, controlled by a clutch screw at one end. It may be purchased for twenty-five cents, and makes a very convenient dental instrument. It is a nerve brooch carrier, canal plugger (made of spent nerve brooches) carrier. By clutching the two ends of a loop of wire, makes a splendid dentimetre. It will hold post wire while a post is being shaped and sized. It also does excellent service as a needle clutch.

Dental Hints.

By G. F. BELDEN, D.D.S., Seaforth, Ont.

A broken gold filling, where foundation is solid, can be made perfectly good by applying rubber dam, drying gold thoroughly with hot air syringe and commencing with Hubbard's No. 4 leaf gold folded twice, using deeply-serrated points. In this way I have built up as much as two-thirds of a central incisor and have yet to hear of one fracture, although some are of three years' standing.

The use of aluminum in connection with a newly-made amalgam filling will give off salts of aluminum, which, if watched closely, will be found forming and piling up very quickly. I first found this out by filling cusps of set crowns to make them stronger, then tested it in the mouth and found the same thing occur. It will do so, no matter how dry it is made, but will not do it with an old filling.

Partial impressions can be taken in plaster, no matter how bad the case may be, either lower or upper, by building up impression cups with wax and fitting them perfectly to the mouth. If there are any dove-tailed spaces between the teeth, place in piece of wax, trim evenly with edges of same. Take impression as usual, removing before plaster sets too firmly. Then slide wax out sideways from between the teeth, place in position in impression, run mould as usual; when hard, separate and trim teeth, and you have a perfect reproduction of the mouth—one you can rely on at all times. Use a little more care to avoid air bubbles than when teeth are absent.

You will hear from me again in some future issue on Pyorrhœa Alveolaris, the treatment of which I have been comparatively successful with.

Proceedings of Dental Societies.

Ontario Dental Society and Eastern Ontario Dental Society.

The sixth annual meeting will be held at City Hall Buildings, Kingston, 25th, 26th and 27th inst. We have just time to give the programme, which has just this moment reached us (12th July):

"Modern Dentistry," C. A. Mountain, Ottawa; "Calcification of Dental Pulps," R. Rose, Peterborough; Paper, D. V. Beacock, Brockville; "Disagreeable Odors in Operating Rooms," Stanley Burns, Smith's Falls; "Treatment of Pulpless Teeth and Alveolar Abscesses," R. E. Sparks, Kingston; Paper, A. Stackhouse, Kingston; Retiring President's Address; A Contribution to Dental Pathology, W. Geo. Beers, Montreal.

CLINIC.—"How to take a correct Bite," W. M. Brownlee, Mount Forest; Contribution, Paper on Clinic, C. N. Johnson, Chicago; Contribution, Papers and Clinics from Members of the Profession.

EXHIBITS.—S. B. Chandler; Detroit Dental Manufacturing Company; S. S. White Company.

Certificate rates will be granted by the G. T. R. and C. P. R. Co's.

Royal College of Dental Surgeons of Ontario.

The following is a digest of the proceedings of the Board of Directors, held in Toronto, March 27:

After the appointment of professors and demonstrators, fixing the curriculum, salaries of the teachers, etc., the report of the Executive Committee was presented, four meetings of which were held; report of Committee on Building and Fitting. The following report of the Secretary followed:

To the Directors of the R. C. D. S.:

GENTLEMEN,—I. The business of the College transacted by the Secretary during the past year has been mainly of the usual routine character. The volume of correspondence is yearly increasing at a somewhat rapid rate. Enquiries as to course of study and conditions of graduation have been more numerous than in previous years, many such enquiries coming from the United States. To most enquiries I have been able to make reply. A few are out of the ordinary course, and I have informed the correspondents that they would be referred to the Board. These will be presented to you in due course.

2. As directed at the last meeting, an official letter was written by the President and myself to the National Association of Dental Faculties, tendering, for reasons given, the resignation of the R. C. D. S. from membership in the Association. After the meeting of the Association in Chicago, in August last, I received a communication from the Secretary saying that the resignation had not been accepted, and asking us to send a representative to the next meeting of the Association at Fortress Monroe, in August, 1894. The correspondence will be laid before you for action.

3. During the year I have been advised of four prosecutions against violators of the provisions of the Dental Act. The first was brought by Dr. H. F. Kinsman, against one Shrieve, an itinerant vendor of patent medicines, who was extracting teeth, ostensibly free of charge. The prosecution was successful and a fine inflicted, which was paid over to me as Secretary of the College.

As the prosecution was not understood to have been authorized by the representative of the district, the payment of \$40 has not been made to Dr. Kinsman. It will be for the Board to determine whether this should be done.

The second case was Pratt vs. Patterson, of Lucknow, at the instigation of Dr. Guaemar, of Kincardine. A fine was imposed and the defendant gave notice of appeal. The case was then taken in charge by Dr. Stirton, representative of the district, and by advice of the Executive Committee, he retained counsel and prepared to defend the appeal. At the last moment the defendant paid the fine, which was remitted to me, and withdrew the appeal. The \$40 allowed by resolution of the Board for each conviction secured by direction of the district representative, has been paid to Mr. Pratt.

The account of Mr. Guthrie, Q.C., counsel in the case, will be presented to you.

The third case was Dowd vs. Beam, near Welland. The defendant pleaded guilty, but subsequently his attorney, in looking over the papers, advised him to apply to have the conviction quashed, on the ground of defective information. By direction of our President, our solicitor looked into the matter, and was so doubtful of success that he would not advise the College to defend. The conviction was quashed.

The fourth case was McCoy vs. Ellis, on Manitoulin Island. Two charges were laid, on both of which he pleaded guilty, and was fined \$40 or ten days in gaol for each offence, the sentences to run concurrently. The defendant elected to go to gaol. The prosecutor, who was not authorized by the district representative, sends a bill for \$80. Wrote him that it would be laid before the Board. From these cases, it is quite clear that it will not be wise for the Board to incur any liability for prosecutions which are not authorized directly by its members.

4. At the last meeting of the Board, the possibility of holding a combined examination with the University of Toronto, was the subject of some conversation. I then informed the Board that I had secured the passing of a resolution by the Senate, asking its Committee on Examinations to report on the practicability and expediency of holding a combined examination with the R.C.D.S.

The Committee did not immediately report, and the time passed when it could have been carried out last year.

On looking into the matter, I found that the regulations of the College and the University respecting examinations were so nearly identical, that all that was necessary to secure a combined examination was to have a common Board of Examiners.

The President of the University being favorable, the attention of the Committee on Examinations was called to the request of the Senate, and a report was presented and adopted by the Senate approving the practicability and expediency of a combined examination.

As our examiners had been appointed for the purpose of trying the experiment, the Senate appointed the same parties as their Examiners except in the case of Practical Dentistry, our examiner appearing on the Announcement of Trinity University, as one of its Examiners in the Department of Dentistry. The Superintendent of our Infirmary was appointed University Examiner in Practical Dentistry.

Our examination has been held precisely as provided by by-law, and so far as I can learn has been quite satisfactory to the students.

The arrangement with the University was that each should pay its own Examiners, and that the other expenses should be equitably divided. They found the room and attendance, and we paid the stationery, printing, expressage and one-half the wages of the watchers. The financial saving to us is about \$35.

So far as I can learn, the examination has been quite satisfactory to the University, every member of this year's Final Class who is writing for D.D.S., having written for the Degree at Toronto University.

If the Board approves of the combined examination, as I sincerely hope it will, it will be necessary to appoint the examiners for next year in conference with the University Committee on Examinations.

5. Applications for examinations have been received from 40 freshmen, 22 juniors and 38 seniors, including five who failed last year, one who was starred at the supplemental examination in October, 1893, and one who claimed to be entitled to examination as being in practice when the Dental Act was passed, and whose application was accepted by the Executive Committee.

6. Of the members of the Senior Class, four were attending

lectures, although their pupillage was not completed, intending to graduate at an American College next winter, and pass the examination for L.D.S. in March, 1895.

In the American Colleges, as under our new regulations, Anatomy and Materia Medica are final in the second year. These four men applied to me to be allowed to write off their final Anatomy and Materia Medica with the juniors, who were completing these subjects this year. On communicating with the President, he replied that he saw no reason why they should not do so. They have, therefore, paid the examination fee of \$10 and written on these two subjects, and ask you to accept their examination.

7. The tabulated reports of the examiners in the several subjects will be laid before you for action.

8. A supplemental examination was held in October, 1893, as directed by the Board. The tabulated report of the examiners and the action of the Executive Committee thereon will be presented to you.

9. During the year 60 Matriculants have been registered. Of these, 31 presented Departmental Certificates; 8 Matriculants in Medical Faculty, Trinity University; 8 Medical Faculty, McGill University; 7 Medical Faculty, Western University; 1 Medical Faculty, Queen's University; 2 in Faculty of Arts, Toronto University; 1 Arts, Trinity; 1 Arts, Queen's, and 1 Arts, Acadia University, N.S.

All of which is respectfully submitted.

J. B. WILLMOTT, *Secretary R.C.D.S.*

Toronto, March 27th, 1894.

NATIONAL ASSOCIATION OF DENTAL FACULTIES.

The Secretary presented the following correspondence (see paragraph No. 2 of his report).

TORONTO, ONT., July 20th, 1893.

To the National Association of Dental Faculties:

GENTLEMEN,—At the meeting of your Association held August, 1892, at Niagara Falls, almost at the commencement of the sessions, an exceedingly unfriendly attack was made upon the Royal College of Dental Surgeons of Ontario, a member of the Association.

The attack was renewed day by day throughout the entire meeting.

During the sessions a notice of motion was given, having for its object the exclusion of the Royal College of Dental Surgeons from membership, by an amendment to the Constitution of the Association.

The result of the discussion, as shown by the series of votes taken, manifested clearly that but a comparatively small minority shared the unfriendly feeling, nevertheless the incident was very unpleasant to a majority of the members, as well as to the representative of the college attacked. As there is no good ground for supposing that the manifested antagonism, based apparently on a misapprehension of the Dental Law of the Province of Ontario, or on ignorance of its provisions, will be withdrawn, and as it is probable the attack will be renewed on the discussion of the proposed amendment to the Constitution, the Directors of the Royal College of Dental Surgeons have deemed it to be due to their friends in the Association that they should not continue to be a disturbing element, and that it is also due to their own self-respect that they should not remain in an association where an influential minority had so plainly intimated that they were not welcome.

We are directed, therefore, to tender, and do hereby tender, the resignation of the Royal College of Dental Surgeons of Ontario from membership in the National Association of Dental Faculties, and ask for honorable dismissal.

By order and in behalf of the Directors of the Royal College of Dental Surgeons of Ontario.

(Signed) R. J. HUSBAND, *President.*
J. B. WILLMOTT, *Secretary.*

INDIANAPOLIS, IND., August 23, 1893.

Prof. J. B. Willmott:

DEAR SIR,—The communication from the Royal College of Dental Surgeons of Ontario, to the National Association of Dental Faculties, withdrawing from membership in the said body, was reported duly by the Executive Committee on 11th inst. at Chicago. The letter of withdrawal was received with many and sincere expressions of regret, and on motion was laid upon the table for one year, and the Secretary instructed to inform you of the action of the Association and request that the Royal College send a delegate to the next annual meeting of the National Association of Dental Faculties, which will probably be held at Old Point Comfort.

It affords me pleasure to inform you also that my proposed amendment to Sec. VII. of the Constitution failed to pass, and that, personally, I hope the Royal College may continue to honor itself by sending you as its accredited representative. I have the honor to subscribe myself,

JUNIUS E. CRAVENS,
Secretary N.A.D. Faculties.

24 Marion Block.

The Board were unanimously of opinion that it was desirable to retain our membership in the Association if it could be done without sacrifice of self-respect, and in view of the friendly action of the Association, at the meeting in August, 1893, at Chicago, and the courteous letter of the Secretary, it was

Moved by Dr. Smith, seconded by Dr. Wood, that Prof. J. B. Willmott be, and is hereby, accredited as the representative of the R. C. D. S. at the meeting of the National Association of Dental Faculties to be held at Old Point Comfort, Va., in August, 1894. Carried.

COLLECTION OF ANNUAL FEE.

On motion, the Executive Committee were directed to take such action as might be thought necessary for the collection of any annual fees which may remain unpaid after the election for members of the Board in December, 1894.

Legislation.

Newfoundland.—The Chain Complete!

An Act to regulate the Practice of Dentistry and Dental Surgery.

[Passed 21th May, 1893.]

Whereas it is desirable to regulate the Practice of Dentistry in the Colony of Newfoundland :

Be it enacted by the Governor, the Legislative Council and House of Assembly, in Legislative Session convened, as follows :

1. This Act may be cited as "The Newfoundland Dental Act."

2. No person shall *practice* the profession of dentistry or dental surgery in any place in the Colony of Newfoundland in which there shall be residing and practising a physician or surgeon or dental surgeon, without having first received a certificate as hereinafter provided, entitling him to practice dentistry or dental surgery.

3. A certificate shall be issued by the Colonial Secretary upon production to him by an applicant for such certificate of diploma of graduation by him in dental surgery from the faculty of any Canadian Dental College or the faculty of any Canadian University having a special dental department, or from any such institution duly authorized by the laws of Great Britain or any of her

dependencies, or from any Dental College in the United States of America, recognized by the National Board of Dental Examiners of the said United States of America, or from any recognized dental institution of any foreign country which required, at the time of issue of such diploma or license, attendance at a regular course of lectures, and an apprenticeship of not less than two years ; and such certificate shall be issued also, as aforesaid, to any person, established in actual practice in the Colony of Newfoundland at the time of the passing of this Act. It shall be the duty of the persons claiming to be entitled to the certificate required by this section, to produce to the said Colonial Secretary evidence satisfactory to him of his being entitled thereto.

4. Notwithstanding anything herein contained such certificate, as aforesaid, may be issued to any dental student who, at the time of the passing of this Act, was actually apprenticed to any surgeon dentist in this Colony, and who shall actually, at the time of applying for such certificate, have served an apprenticeship of at least five years, and who shall also produced a certificate to the Colonial Secretary from such surgeon dentist, testifying to that effect : Provided always, that nothing herein contained shall be construed to require physicians, surgeons or others to take out such certificate for the purpose of qualifying them to extract teeth.

5. Before any such certificate is granted, the applicant shall pay the Colonial Secretary the sum of five dollars.

6. After three months from the passing of this Act, any person not holding a certificate issued by the said Colonial Secretary, as aforesaid, who shall *practice* dentistry or dental surgery, except extracting teeth, in any place in the Colony of Newfoundland in which there shall be residing and practising a physician, surgeon or dental surgeon, shall be guilty of an infraction of this Act, and shall be liable, upon summary conviction before any Stipendiary Magistrate or Justice of the Peace, to a fine of not less than five dollars, nor more than twenty-five dollars, besides costs of suit, to be levied by distress of the defendant's goods and chattels or, in default thereof, to be imprisoned for a period not exceeding one month.

7. No person, who has not received the certificate required by this Act, shall recover in any court of law any fees of money for any professional services, or operation performed by him, nor for any materials provided, by him in the practice of dentistry or dental surgery.

8. Nothing in this Act shall be construed to prevent surgeons or physicians from temporarily filling teeth or otherwise attending to them for the prevention or cure of toothache.

Selections.

Discussion on the "Retention of Artificial Debentures in Edentulous Lower Jaws."

(*At last General Medical Council, London, Eng.*)

Mr. David Hepburn opened the discussion. Having remarked upon the advantage of occasionally displacing a paper by a discussion on some practical subject, he stated that in introducing the subject for which he had made himself responsible, he intended to confine himself to a consideration of those cases, which present themselves happily only from time to time, which gives much uneasiness to the patient and specially tax the ingenuity of the practitioner, cases which for want of a more elegant term he would call "slipping lowers." The difficulty, then, upon which they wished to throw light was that which revealed itself when a patient, probably advanced in years, seeks the aid of a dental practitioner with a view to being supplied with artificial teeth, all the natural ones being lost and not even the roots remaining. A denture is adapted, but as the early days of trial progress it is found that it has a tendency to slip forward, in consequence of which the mucous membrane becomes irritated, and more or less ulceration and pain is set up. These symptoms are relieved by "easing," as it is called, but only temporary relief results; shortly fresh spots of ulceration appear, and the operation of "casing" has to be repeated. What were the conditions leading to such a result? It would be well to recall some of the simple anatomical facts connected with the lower jaw which had a direct bearing on the subject. The inferior maxillary bone varies much at different periods of life. It consists of a curved horizontal portion and two perpendicular portions (the rami), which join the posterior portion of the body on either side. At birth the rami join the body at an oblique angle, as maturity advances, and up to middle life, the obliquity diminishes until the junction is rectangular, in extreme old age, or second childhood; obliquity is resumed, simulating the condition as presented at birth. It was this obliquity in a more exaggerated form which rendered the jaw intolerant of the artificial denture. Comparing the normal outline of the jaw in middle life with that typical of old age, he would draw attention to the position of the mental foramen, noticing it first from its external aspect. It would be observed to be midway between the superior surface of the alveolus and the base of the jaw in the first case; in the second, the alveolus having disappeared, it opened close to the superior surface of the body of the jaw, at

which point its nerves and vessels spread out directly to the mucous membrane. Viewing laterally the internal surface of the inferior maxilla, the mylohyoid ridge would be seen to be directly midway between the superior surface of the alveolus and the base of the jaw. Again, a further point to be noticed on this aspect of the jaw was the group of genial tubercles situated on the inner side of the symphysis; when extreme absorption had taken place they often assumed an indefinite mass and form with their tendinous attachments, on which no denture can rest. An inclined plane is created laterally, and from this eminence a denture will often slip downward and forward. In addition to these immediate aspects of the body of the jaw itself there were conditions of mobility different from, or rather an exaggeration of, those which the joint is capable of performing during the period when the teeth are existent. As most bony prominences become modified with advancing years so it is with this one. Further, all these senile changes were frequently associated with alterations in the spinal column, resulting in a fixed downward and forward position being imparted to the head, causing the jaw to rest most naturally in a state of protrusion. By reason of this the space posteriorly is reduced to a minimum, therefore when the artificial teeth are present there is a tendency for the denture to be tilted and displaced. Affecting also lower dentures, they had the muscular force of the tongue. The points he had endeavored to emphasize might exist temporarily or permanently. With regard to treatment, provided that careful impressions of the part had been obtained, and the most natural antagonism ascertained, the question presented itself as to whether or not spiral springs should be employed. He would suggest that they should be dispensed with, as, by reason of the configuration of the lower jaw, they will tend to displace, rather than retain, the denture. At the same time he thought there existed certain classes of cases which needed the employment of springs where the retention of the denture by suction was impossible. When necessity arises for the fitting of springs certain points must be adhered to: in view of the limited space they must be brought well forward; further, it should be provided that when the jaw opens the lower swivel will be on a vertical line with the upper swivel; in this position they should be "blocked;" *i.e.*, stops should be inserted in proximity to the swivel heads. By this means the direct thrust of the spring will be maintained. Deeply cut chambers will sometimes suffice to procure the same result. The consideration of the adjustment of springs would afford a theme in itself for discussion. Dental surgeons will receive eagerly any suggestion which would retain lower dentures in their place, and by the kindness of Mr. Lennox, of Cambridge, he (Mr. Hepburn) was able to show the contrivance which was fully described by Mr. Lennox at the Exeter meeting. The most heroic treatment was that suggested by Mr. Dall, of Glasgow, who created

sockets in the lower jaw by drilling, into which he inserted posts, by means of which the denture is retained. Another method was that of weighting lower dentures to ensure stability, the principle, Mr. Hepburn thought, of the greatest service where the muscles were strong, but he had had a case where the muscular resistance was so great that the denture was like "a storm-tossed vessel in an angry sea." With regard to the relief of pain by lining the denture with gutta-percha, the mucous membrane became absolutely tolerant of it, but there was the disadvantage of impurity after prolonged use. The metal moulds required some ingenuity in their treatment. The perishable nature of the base, and the impossibility of paring it away without destroying its surface should laceration occur, detracted from its advantages, and all things considered, vulcanite seemed the best. In conclusion, he would give his own experience in a few words. He believed that the difficulties could only be overcome by personal adjustment of the denture to the mouth itself through repeated trials, consequently, during the initial stages of "fitting," frequent visits at short intervals on the part of the patient were of the utmost importance. Having examined the patient, and formed a prognosis of the difficulties to be dealt with, impressions should be taken, preferably in plaster of Paris. When these were cast, and trial plates prepared, the approximate articulation should be taken, with the head bent slightly forward. The bite having been taken, the upper denture might be made and the lower one set up in wax, keeping the lower front teeth well within the upper teeth as to position and height; if springs were used they should be temporarily adjusted. Almost invariably the articulation, notwithstanding the precautions, would be found at fault—the lower would slip forward. He would then cover the crowns of the teeth with a moulding of pink wax while the wax was soft; taking the dentures out of the mouth, the two should then be united according to the indications thus obtained; the bite might then be finally adjusted. In doing this the teeth should again be set well back, and no prominent cusps be allowed to interfere with the free movement of the jaws. In the upper denture additional canines in the place of first bicuspids would allow of freer movement without tilting.

Mr. Lawrence Read said, with regard to the remarks of Mr. Hepburn as to the lining of the lower pieces, this was a matter in which he had taken some interest, and had devoted a good deal of time to some six or seven years ago; the difficulty of finishing the rubber, he had now quite overcome; it was a very simple matter when once one knew how to deal with it. His method was to take a large piece of steel wire, about a quarter of an inch thick, with a rounded end, make it red hot, and run it over any rough surface that it was desired to polish. If it was then treated with a little chloroform on wool, a beautiful polished surface was left, just as if

it had been baked in a metal mould. It took no time to do, and every edge could be finished off as nicely as could be desired. He had had some lowers with the soft rubber linings, which had been worn for seven years, and were still quite perfect in every way. It was not at all necessary to make them on metal moulds, and they could be finished off, if a little rough, just as readily as a piece of hard vulcanite could be polished.

Mr. S. A. Coxon (Wisbech) demonstrated, by means of diagrams on the blackboard, the plan he adopted in order to get the swivels for springs exactly opposite one another. His method was to take a small strip of No. 7 gold, fold another piece over it, pressing it tightly, thus forming a bolt which could be drawn either forward or backward, and permitted of the springs being put in absolutely true. Another advantage was that the swivel could be attached without getting twisted.

Mr. F. J. Bennett, commenting on the model shown and explained by Mr. Hepburn as being in an oblique position an inclined plane being formed, thought that the condition would bear another interpretation. As it stood, undoubtedly there was an inclined plane, but he (Mr. Bennett) doubted whether in nature they ever got that condition of the mouth if left to itself. If artificial teeth were placed in the mouth it might be so, but without them there was no longer an inclined plane, the lower and upper jaws became parallel. He thought that these facts should teach them to make the bite as shallow as possible; in that way the inclined plane would be reduced to a minimum. Mr. Bennett then criticised at some length the anatomical accuracy of the diagrams by which Mr. Hepburn's opening was illustrated.

Mr. G. Brunton said there was a point which he had been expecting to hear mentioned, namely, that where springs were worn they not unfrequently twisted round, in consequence of which the upper denture is twisted in one direction and the lower in another. He might say that he personally very seldom used spiral springs, but he had seen such cases, and it occurred to him that the reason of the twisting was that the two spiral springs were both coiled in the same direction; he thought that if they were coiled in opposite directions the difficulty would be overcome.

The President remarked that he had himself seen cases similar to those alluded to by Mr. Brunton. They were usually cases where the denture had been worn for many years, and he was inclined to attribute the twisting to the absorption of the alveolus at the sides, leaving the plate nearly impinging on the palate in the middle. He had never seen the twisting in freshly-made plates.

Mr. W. A. Vice narrated an instance which had come under his notice only the previous week, and which supported the view just expressed by the President. The denture had been worn for a

long time ; the lower arch was absorbed very much, until the lower piece would not fit at all. The lady dated the movement round to the left side from the time of her having a new spring on the right, and Mr. Vice thought that she was probably correct ; there certainly was some difference in the strength of the springs, the old one on the left being much weaker than the new one on the opposite side.

Mr. S. J. Hutchinson said that Mr. Hepburn had spoken of the loose membrane which was sometimes the cause of trouble in fixing a lower denture. His usual plan was to snip off the membrane with a pair of scissors, allowing the wound to cicatrize, and in this way the difficulty was overcome most satisfactorily.

Mr. H. Baldwin narrated particulars of a case in his own practice, presenting some very interesting features. It was an instance in which an artificial denture, fitted to an edentulous mouth, hurt the patient, not because it slipped forward, but because it moved about so much. But little remained of the lower alveolar process. The attachments of genio hyoglossus and mylohyoid muscles stood up from the general level of the lower jaw. It was an interesting point, Mr. Baldwin thought, that these muscles were preserved when there had been the greatest possible removal of the rest of the alveolar process. To make the plate more comfortable, vellum rubber was tried as a lining, but it had to be given up, as the patient, a man aged sixty, found it induced a tendency to clamp his jaws together. The greatest success in treating this case was ultimately obtained by setting up the teeth on a Bonwill articulator, paying great attention to the practical hints upon which Dr. Bonwill laid stress, that was to say, taking care to have the line of articulation of the two rows of back teeth bending decidedly upwards, and further, providing that in all possible movements of the lower jaw the lower denture would strike the upper one at *three points* at once. Considerable care and trouble was necessary in order that this requirement should be fulfilled, but it could be done.

Mr. W. A. Maggs thought that perhaps Mr. Hepburn laid too much stress upon the mandible ; personally he had always regarded the articulation as responsible for the forward movement. The fact that the *eminentia articularis* in aged skulls was so much diminished would tend, of course, to the free movement of the mandible. No doubt the articulation became very lax, and if it were possible to examine a sufficient number of skulls, a considerable difference in the neck of the condyle, and probably in the condyle itself, would be found. He thought that the cases just mentioned by Mr. Baldwin were probably aggravated by the continuous wearing of the denture. While it was difficult to do without the teeth, yet they knew that continuous pressure produced absorption, and he thought that if the denture were not so constantly worn, the tendency to wasting of the jaw would be diminished.

Mr. J. H. Badcock said that in cases where one had great difficulty in making a lower remain in its place, a model taken in the ordinary gutta-percha or stent would show a ridge all round; if, however, a model of the same jaw were taken in plaster of Paris they would find no ridge; for this reason he strongly advocated plaster of Paris in preference to gutta-percha for taking impressions in such cases. If the model were taken so as to rest only on the floor of the mouth, and not at all upon the bulging sides, there would be very little difficulty, and there would also be much less trouble *afterwards* in easing the case away where necessary. With regard to smoothing the vellum rubber with a hot iron, he thought the whole secret of success lay in having the iron hot enough.

Mr. R. H. Woodhouse did not think that the discussion ought to pass without an allusion to the extreme importance of preserving the natural teeth. They knew that the alveolus was so subservient to the presence of the natural teeth that the retention of even a single tooth, if prolonged, might save all the trouble that had been described that evening.

Mr. W. Hern desired to touch upon a point with regard to the muscular attachments referred to in the mylohyoid ridge. He thought it would be found a considerable advantage if the denture were left a little low. He agreed with Mr. Badcock as to the superiority of plaster models. There was a little point about the tray for taking impressions; if the tray was a little deep one got the frænum of the tongue thrust down, giving a false impression. With regard to the turning of the dentures in opposite directions, as referred to by Mr. Brunton, he (Mr. Hern) thought that it was due to the thrust of the swivel being inaccurate; so long as the denture fitted well the plates were correct and retained their adaptation, but when the mouth began to change and the fitting was not quite so correct, then the upper and lower dentures turned round as the consequence of the thrust of the swivel being wrong. It seemed to him that the excellent device brought forward by Mr. Coxon would correct this.

Mr. Coxon had omitted to mention that if one got a slight soreness of the mouth it could be relieved by shifting one of the bolts a little. His contrivance also afforded an opportunity to the patient of seeing if he could do without springs.

Mr. Betts stated that he found it very useful to ask a patient to protrude the tongue; by this means, in conjunction with a shallow tray, the floor of the mouth was raised and one got a much more satisfactory impression.

Mr. Storer Bennett, after the exceedingly interesting and able manner in which Mr. Hepburn had introduced the subject, wished only to touch upon an anatomical point, to which allusion had been made in the opening. In going through the museum, certain

variations in the height to which the *eminentia articularis* was raised would be observed. He gathered that Mr. Hepburn was of opinion that a good deal of the forward movement of the lower jaw in old people was due to the fact that the *eminentia articularis* in them was much lower than in people of middle life. This view should not go forth on the authority of the Society without a reservation. He (Mr. Bennett) thought that the protrusion was probably due more to the fact of the ligaments yielding and the jaw becoming exceedingly lax in old age, than to any absorption and flattening of the *eminentia articularis* itself.—*Dental Record* (London, Eng.)

Gum Lancing in Difficult Primary Dentition.*

By DR. E. C. KIRK, D.D.S.

I should feel myself constrained to offer you an apology for bringing to your notice such an antiquated topic, were it not that, old as it is, the vexed question of its legitimacy is still, in dispute, and the procedure has not gained general acceptance among medical and dental practitioners. It is not my purpose to enter into any historical *resumé* of the views entertained by various writers of greater or less prominence, who have recorded their opinions from the times of Hippocrates and Galen to the present time; but in this paper to call your attention to the main differences in the two principal schools of thought on this subject, and urge upon you the necessity of investigating it for yourselves, not from the point of view of the medical practitioner, but from the background of the special training and culture which you possess as dentists. I think we may safely dismiss from consideration the views and theories of earlier medical writers upon this subject, and confine ourselves wholly to an investigation of the more recent, for in a certain and more or less definite degree the former are included in the latter—at least, so much of the former as has been considered valuable. The question of gum lancing in difficult primary dentition has been the subject of much animated discussion during the past eighteen months. Especially since the publication of a book by Dr. Forchheimer, of Cincinnati, Ohio, on "Disease of the Mouth in Children" (non-surgical), in May, 1892, in which work the author took most positive ground against the operation as a therapeutic measure for the relief of diseases inci-

*An address before the Woman's Dental Association of the United States.

dent to the teething period. His conclusions respecting the operation were tersely stated as follows :

1. It is useless—(a) as far as giving relief to symptoms ; (b) as far as facilitating or hastening teething.

2. It is useful only as blood-letting, and ought not to be used as such.

3. It is harmful—(a) in producing local trouble ; (b) in producing general disturbances on account of hæmorrhage ; (c) in having established a method which is too general to do specific good, and too specific for general use.

4. It is to be used only as a surgical procedure to give relief to surgical accidents.

I have quoted these conclusions at length, because they fairly represent the opinions, and are the arguments generally put forward by that class of medical practitioners who do not know anything about the operation from practical experience, and still less from an intelligent understanding of the *rationale* of the procedure.

A critical review of Forchheimer's book appeared in the *Dental Cosmos* for June, '92, pointing out some of the fallacies that were apparent in his conclusions, and advocating the operation of gum lancing on rational grounds, from the standpoint of accepted knowledge of the anatomy, physiology, and nervous relationships of the tissues and organs involved. The subject was further discussed by numerous authors and editors in medical and dental periodicals, and finally Dr. Magitot presented it in a communication to the French Academy of Medicine. In his paper the author took the ground that inasmuch as dentition was a purely physiological process, there could be no such things as "accidents of dentition," or, as we express it in this country, diseases incident to or dependent upon dentition. His argument to sustain his position was, like that of Forchheimer, based solely upon analytical reasoning from premises which could not be accepted by anyone conversant with the clinical aspects of the subject.

As a sequel to this discussion of the French Academy, M. Poincot, one of the participants, has elaborated the subject in an interesting volume recently published, entitled, "Accidents of the First Dentition."

It will be seen, then, that the class of practitioners who are antagonistic to the operation of gum lancing are those who, like Forchheimer, object to it because they do not understand why it should be done, nor how to do it—mistaking gum scarification for gum lancing,—and those who, like Magitot, oppose the operation as a therapeutic measure because dentition is a physiological process ; *ergo*, there can be no diseases due to or caused by it ; hence lancing the gums for the relief of any disorders intercurrent with dentition is irrational and unnecessary. During the past twenty years it has been my lot to have been somewhat closely related

to medical as well as dental work, and to have had rather frequent opportunities to observe cases of difficult dentition, and the effect of an intelligent use of the gum lancet as a therapeutic measure for the relief of disorders incident thereto; hence my faith in the efficacy of the operation is the outgrowth of personal experience as well as observation, and if I shall seem to advocate it somewhat dogmatically, it is because I am convinced that the facts sustain my belief.

The argument of Magitot and his followers, it seems to me, is easily demolished after an investigation of his major premise, viz.: that dentition is a purely physiological process. The answer to this is simply that dentition, while it is generally a physiological process, is not always so, and like all physiological processes, if interrupted or interfered with, may become pathological in its expression. We have only to call to mind the many accidents and fatal pathological phenomena which may attend parturition to find sufficient proof of the utter fallacy of Magitot's proposition.

The prurption of a tooth is a complex process, and includes a number of factors which, when they proceed harmoniously, produce no untoward results, and the teething process in its physiological expression is unattended with disturbances to the health status of the infant. A perfectly normal process of dentition rarely occurs. There is generally a condition of nervous excitation attendant upon the teething period, which in many cases is so slight as to express itself only as a somewhat increased nervous irritability in the child, productive of wakefulness, etc. Or the nervous irritation may be so increased in degree as to cause the most alarming and even fatal consequences. The period of teething is generally made manifest by this increased nervous irritability, and an increased flow of saliva from the mouth. The gums may be more or less congested over the presenting teeth, the positions of which are usually clearly discernible by reason of the gum being elevated and made tense by the erupting tooth crown beneath. The tumefaction or congestion of the overlying gum may be entirely absent, even in cases where the most profound manifestations are present, due wholly to the peripheral nervous irritation caused by the advancing tooth. It is this class of cases where the local manifestations are but slight, and the general disturbance is profound, that has been the cause of the controversy which has been waged around the question of gum lancing. Those who hold to the belief of Forchheimer deny that any relief of general systemic disturbances can follow the operation in such cases. Where they have to deal with a case presenting a congested condition of the gum tissues, they admit that the operation may be useful by letting blood, but no further. The explanation of this belief is not far to seek. It is due to the fact that they understand the operation of gum lancing to mean a superficial scarification of the gum tissue, to empty the congested vessels of the parts and so reduce the local hyperæmia.

I have taken some pains to investigate the matter when opportunity has offered, and I have never found an operator who objected to gum lancing who did not have exactly this conception of the operation. This is gum scarification, and not gum lancing. Gum lancing is a totally different procedure, undertaken not for the relief of congestion of the gum, but for the purpose of freeing the tooth from restraint by the unyielding gum which covers it, causing backward pressure of the undeveloped tooth root upon the formative dentinal papilla at its base; the irritation of this latter is the cause of the nervous disturbances which it is the purpose of the operation to relieve. The conditions which demand relief by gum lancing are so graphically told by the late Dr. J. W. White, in the *American System of Dentistry*, that I cannot do better than quote from him:

“The direct pressure of the advancing tooth upon the fibrous integuments is not the only nor the principal factor in the disturbance of equilibrium in pathological dentition. The most serious complications are, it is reasonable to suppose, caused by the resistance of the gums, and consequent pressure upon the nervous and vascular supply of the pulp, giving rise to severe and unremitting pain—a true toothache, comparable only to that exquisite torture which is experienced in after life from an exposed and irritated pulp. The condition, when a tooth is thus situated, is not unlike that which is found in whitlow, vascular and sensitive tissues bound down by unyielding coverings. If such a perversion of this physiological process is possible, there can be no question as to the extent of the mischief which may result—an irritability of the general system which finds expression in loss of appetite, sleeplessness, nausea, thirst, fever, diarrhœa or constipation, convulsions, paralysis, and other serious lesions, many of which, as strabismus or epilepsy, remain throughout life.”

If, then, morbid symptoms, coincident with the teething period, manifest themselves, and their history and character point to a dental origin, the operation of dividing the gum over the presenting tooth should be so performed that the crown shall be completely freed from its imprisonment by the overlying tissues. It is frequently necessary to include in the operation not only the teeth immediately presenting, but those next in order of eruption in each jaw. If the operation has been properly done, it should be followed almost immediately by marked improvement in the general condition of the infant, and instant relief to the nervous distress.

The technique of the operation is quite simple. The child should be placed on a pillow lengthwise, supported on the lap of the nurse or assistant, seated on a chair facing the operator, and with the back toward the source of light, which should come preferably from a north window. The operator seats himself in front of the nurse, with the end of the pillow supporting the child's head in his lap. He then has command of the territory of operation, and can,

by holding the child's head, guard against any sudden movement. The hands and body of the child are to be firmly held by the assistant. The best form of lancet for the operation is a small curved bistury, such as is sold at the depots for the purpose, but with the needle-like point ground off to a small but keen, rounded edge. The lancet is to be passed through the overlying tissue until it is felt to come into contact with the enamel surface, and the tissue divided a sufficient distance to allow the tooth to erupt without resistance.

For the incisors, a single linear cut along the incisive edge is sufficient; for the cuspids and molars, a crucial incision is required. The operation is not excessively painful, and the pain is reduced to a minimum when a properly sharpened knife is used dextrously. Little hemorrhage follows, but if persistent, some slight styptic, such as powdered alum or phenal sodique, may be used.

Nearly all medical writers agree that the teething period is one fraught with danger. Statistics show that the percentage of infant mortality is markedly higher during teething. A long series of infantile disorders occur most frequently during that period, and while recognizing this coincidence we find many otherwise intelligent practitioners ignoring the possibility of a casual relationship between these diseases of infancy and the teething process, and, consequently, condemning the operation of gum lancing, not only as useless, but dangerous.

A recent published work on "Diseases and Injuries of the Teeth," by Messrs. Morton Smale and J. E. Coyler, of London, contains the following suggestive statement: "Many healthy children pass through this period without any untoward symptoms, but many succumb, as may be gathered from the tables of mortality, teething being the cause of over 4.8 per cent. of deaths in children under 12 months, and 7.8 per cent. between the ages of 1 and 3 years." These same authors, however, notwithstanding this statement, are inclined to regard gum lancing as not useful save as a blood-letting measure. I have been unable so far to find any reported case of fatal result from gum lancing, nor have I knowledge of any untoward result occasioned by it when correctly performed. It is quite true that no precise scientific demonstration by the microscope or by post-mortem examination has been made to settle the question of the exact rationale of the procedure pro or con. The conditions are such that it perhaps never can be made, but this same objection might be as potently urged against many other well-established therapeutic measures in constant legitimate use.

The value of gum lancing in difficult dentition is established almost solely on clinical evidence, though it is difficult to understand why the perfectly plausible hypothesis of the rationale of its action should be rejected by its opponents as imperfect, when that

set up by them in rebuttal is so manifestly illogical and inconsistent. Clinical evidence depends for its value upon the character and relationships of the phenomena observed, and the frequency with which certain related phenomena repeat themselves under similar conditions. If, for instance, infantile convulsions occurring coincidentally with difficult or delayed eruption of the teeth are found to be relieved by a judicious use of the gum lancet, and a favorable result is obtained invariably in a number of cases so treated, we should be justified in assuming the casual relation between difficult dentition and infantile convulsions within certain limits, and be justified in the use of the lancet as a therapeutic measure for their relief. This relationship has been repeatedly observed. I have in several instances seen teething children, where convulsive seizures had supervened until the child was almost comatose, relieved at once and veritably snatched from the jaws of death by freely dividing the gum over the retarded teeth.

But convulsive seizures are not the only pathological result of delayed dentition. The irritation caused by the advancing tooth is but slight at first, and extends over a considerable period of time. The impress upon the nervous system of the child may be comparatively slight, so that its expression may not be manifested in the explosive outbursts of the nervous system which we know as convulsions. The nervous stress is more commonly manifested in loss of appetite, impairment of the digestive function, and nausea. Impairment of the digestive function, due to interference with the innervation of the stomach, whereby the food ingested becomes itself a source of irritation through the establishment of fermentative processes throughout its mass, leads to and is accountable for the train of intestinal disorders, infantile diarrhoeas, intestinal catarrhs, etc., which so often accompany the teething process, and constitute the *bete noir* of mothers in rearing their children through the much dreaded second summer. Where the digestive sequelæ of pathological dentition have established themselves, the lancet cannot be expected to effect a cure unaided. Its use should be followed by appropriate constitutional treatment.

The close relationship of difficult dentition and capillary bronchitis in infants has frequently been noted by medical writers and practitioners, but the idea of pathological dentition as a predisposing, not to say exciting, cause seems to have been overlooked until recently, notwithstanding the fact that in very many of the fatal cases of croupous pneumonia in young children there has been a definite history of difficult dentition immediately antecedent to the pulmonary attack. Recent observations lead me to suspect that in these cases the antecedent condition of difficult or pathological dentition has been the cause which induced the subsequent attack of capillary bronchitis.

In this connection it may be well to call to your attention the investigations recently published by Dr. Emil Schreier, of Vienna, with respect to the nature of the infecting organism in apical periodontitis. This observer found in all the cases of apical inflammation about the roots of teeth which he examined, twenty or more in all, the diplococcus pneumoniae, invariably present as the exciter of the inflammatory process. This is in line with Miller's investigations, which showed that the diplococcus pneumoniae was a constant inhabitant of the mouth. As a further link in this particular chain of evidence, Dr. C. N. Pierce recently recounted to me two cases of incipient croupous pneumonia which occurred at different times in a family who were patients of his. In each instance the child was suffering from difficult eruption of the teeth, and in each case croupous pneumonia was set up as a sequel. In both cases Dr. Pierce performed gum lancing, and in both cases there was subsidence of all the distressing symptoms in a few hours, with rapid and complete recovery. To any one who has investigated this subject, especially from the clinical standpoint, there can be no doubt as to the great utility of the operation in relieving in many cases the most alarming symptoms. It is simply and easily performed, and there are no weighty objections which can be urged against it, so that it is a matter of continued wonder that there can be found in the ranks of medical practitioners those who still strongly oppose it.

It may be asked of what interest can the question be to the dentist, who is seldom, if ever, called upon to operate in these cases. To this I would answer, prepare yourselves by an intelligent understanding of the operation, and its correct relationships, and you will be consulted with respect to these matters when it is known that you are competent to give judgment upon them. Or, if the knowledge has no usefulness outside of your immediate family, it may still afford you the opportunity to save the life of some one dear to you. I verily believe it has upon more than one occasion in my own family circle.—*Dental Practitioner and Advertiser.*

Death Under Nitrous Oxide Gas.*

By JOHN ADAMS, F.R.C.S. Eng.

The patient came to the dentist on Monday, February 21st, about 1.30 p.m., and had an hour previously partaken of a light lunch. After waiting half an hour, he was shown into the operating room on the first floor. He seemed in good health, and wished to have a second right upper molar extracted whilst under gas.

* A Paper read before the Society of Anæsthetists on March 15th, 1894.

There was nothing tight about the neck, nor was there anything in his appearance to lead one to think he was not a fit subject for the anæsthetic. He had a small receding jaw, and a short, thick neck, but no abnormal swelling of any kind which prevented his closing his mouth, as reported in *The Lancet* of the above date. An ordinary prop, attached to a strong fishing-line, was placed between the upper and lower central incisors. After taking three or four inspirations of nitrous oxide gas he took off the face-piece and said he felt nervous, but at his own request I proceeded to go on with the administration. His respiration was shallow but regular, and after taking about two-thirds of the ordinary quantity of gas, the tooth was extracted quickly and without any difficulty; the respirations at once became irregular and the patient became more cyanosed, his muscles rigid, and after three or four respirations, he ceased to breathe, but no danger appeared imminent. Breathing not continuing, the prop was at once removed, the patient taken from the chair on to the floor, and artificial respiration commenced within thirty seconds after the extraction. The tongue was pulled forward. The heart was beating regularly but not strongly, the body remained rigid, and there was no inspiratory effort. About two minutes after the tooth was extracted, two or three expirations took place, showing there was no considerable obstruction in the larynx. Nitrate of amyl was applied to the nose and mouth; but as no inspirations took place, it could not have affected the patient. A subcutaneous injection of ether was given over the præcordial region, as the action of the heart now became feeble. These measures failing, tracheotomy was performed within three minutes of the time the gas was discontinued to be administered; the position of the patient was awkward for the operation, and the extremely receding lower jaw, with a short, thick neck, made it somewhat difficult to perform, but as everything was at hand and ready assistance given, I fortunately made an entrance through the upper rings of the trachea without loss of time. The tracheal wound was kept open, and on resuming artificial respiration, a quantity of mucus (about an ounce) was forced out, nearly clear and only slightly blood-stained. Although one could hear air passing in and out of the opening in the trachea, there was no voluntary effort of breathing from first to last. The patient now became still more cyanosed, and the heart could no longer be heard beating. Artificial respiration was continued for twenty minutes longer, although there was little hope of its being of use. Micturition took place after the commencement of taking the nitrous oxide, a symptom which I have not infrequently noticed when cyanosis becomes well marked, and also in children. I will recapitulate shortly the methods adopted to restore respiration: (1) artificial respiration within half a minute after the patient ceased to breathe; (2) nitrate of amyl within one minute after

respiration ceased ; (3) subcutaneous injection of ether within two minutes after the patient had ceased to breathe, and (4) tracheotomy within three minutes after the patient had ceased to breathe.

The necropsy was performed by Dr. Norman Moore, at the request of the coroner, twenty-five hours after death, in the presence of the medical attendant of the deceased and myself. Dr. Moore has kindly looked over and corrected the description of the morbid appearances. The body was well nourished and muscular, of a man about twenty-six years of age. The face, neck and back were all deeply cyanosed ; there was a mark of a recent tracheotomy wound. On removing the skull cap, which was unusually thick, venous engorgement was visible on the surface of the cerebral hemispheres ; nothing abnormal was noticed in the cerebral substance. On opening the chest, the veins were noticed everywhere full of dark fluid blood. All the internal organs were healthy. The pericardium contained the normal amount of fluid. The heart was normal and the valves competent. All the cavities of the heart were empty, except a small quantity of fluid blood in the right ventricle. No clots were present. The lungs were engorged with dark fluid blood, and were nearly airless. On opening the bronchi, the mucous membrane was dark in color and engorged, and a quantity of thick mucus was found in all the larger bronchi. The trachea was also engorged, but contained less mucus. The upper three rings were divided. The larynx, tonsils and tongue were removed together for examination. The larynx showed no swelling, and very little engorgement, and contained no appreciable quantity of mucus ; no foreign body or abnormal substance was found. The tonsils showed old enlargement, but did not meet in the middle line. The stomach contained a small quantity of undigested food, with a good deal of ropy mucus. The œsophagus was normal. The liver, kidneys and spleen were all dark in color, showing venous engorgement, but without any signs of disease. The bladder was empty.—*Dental Record, London.*

Editorial.

Newfoundland.—The Chain Complete.

When we announced some time ago that the chain of dental legislation in the Dominion was complete, we felt a professional and political yearning that our oldest island, Newfoundland, could come in with the family as a full partner in the professional advancement. It will not be long, we trust, before it will complete

the chain of British Confederation on this continent, and give us then a Dominion of 3,616,583 square miles. In the meantime, our readers will be delighted to hear from Dr. T. L. Hallett, of St. John, Nfld., that the dentists of the little island empire, have secured an Act of Incorporation, which we publish on another page. This really completes the chain from the Atlantic to the Pacific.

Personal.

[We should feel obliged if our readers would send us matter for this department. A few lines on a postal card would frequently be sufficient.—ED.]

Dr. E. B. Ibbotson, major of the Royal Scots, Montreal, has been appointed to the command of the Bisley Team, which sailed for England on the 23rd of last month.

Dr. H. Ievers, of Quebec, is having great success with his "Frankincense and Balsam," for temporary use in carious teeth. It is a most convenient and comforting little addition to the domestic remedies for emergencies.

In reply to several inquiries, we are glad to repeat that Dr Haskell's Post-graduate School of Prosthetic Dentistry is flourishing as of yore at 211 Wabash Avenue, Chicago. We have had several letters, thanking us for advising applicants to attend the school.

Dr. G. Lenox Curtis, our clever oral surgeon, of New York, stole away for a few days from his patients to tempt the trout in our Laurentian lakes, and had good luck. Dr. C. H. Wells, of Huntingdon, Que., accompanied him. They are both members of "The Trotters," founded by Dr. Young, of Concord, N.H.

It is a curious coincidence that when "The Trotters," after the Vermont State Dental Society meeting, were in session, enjoying the songs and stories, and the relaxation of spirit which wearied dentists know so well to appreciate, one of the members suggested that the ancient rite should be introduced at the American Dental Association, and that the first Great-Grand-Big Knight of the O.S.C. should be the jolly editor of the *Dental Practitioner and Advertiser*. As a man of weight, and one who knows how to tell a good story and enjoy a hearty laugh—well, our memory goes back to old times in Toronto when he made it lively enough. May the spirit of good fellowship bloom forever in his heart.

Dr. Chas. Barnes, of Syracuse, N.Y., died suddenly on the 3rd of last month. He was born in England in 1837, and came to Syracuse as a boy and became a student of the late Dr. Westcott. He occupied several offices in the State Association and bore a first-class reputation as a scientific and practical dentist. He was, socially, one of the best of companions—an enthusiastic cricketer and base-ball player.

The Royal Arcanum, one of the very best of the Fraternal Beneficiary Orders, has got a good foothold in Canada. It provides the social enjoyment of a grand fraternity; the financial protection of a powerful life insurance corporation; sympathy and aid to the member while living, and to his bereaved family a payment of \$3,000. It is managed by a brotherhood bound in *self-interest*, and is as safe as the best bank. In the last list of death claims, we observe the names of Dr. C. W. Wardle, dentist, and no less than six physicians. We commend it very strongly, after several years' experience, as one of the few perfectly safe and reliable organizations.

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