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Dominion Dental Journal

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Original Communications

THE DENTAL SHOW CASE.

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By L.D.S.
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When the profession was first organized in Ontario, show cases were not uncommon. They were not under the ban of any code of ethics, or any professional *esprit de corps*. But shortly afterwards they disappeared, until to-day we are able to boast that there is not one publicly exhibited at the door of a dentist in the Province. It is otherwise in Quebec. There are to-day fully four times as many as there were in 1868, and the quackery and quack-imitation is far beyond anything in its previous history. Several of the respectable members who formerly used them abandoned them, and now denounce them. Yet there are some who are by no means quacks who continue to use them, and it is well to know the reason. It must be remembered that the Province of Quebec is distinguished above all the other Provinces, and above every State in the American union, and even Mexico, for its illiteracy, and for the proportion of the people who cannot read and write. It was in Quebec that a book on agricultural chemistry was condemned for the French schools, not because it was insufficiently technical or accurate on the subject, but because it contained nothing about the Virgin Mary; and when the Grey Nuns of Montreal, and other

religious sisterhoods have for nearly twenty years been illegally practising dentistry in all its branches—for their own communities it is true, but nevertheless in absolute defiance of the law—we may understand the peculiarities of the professional position. What is the excuse made by a few otherwise respectable men who use the show case at their doors? The same that is offered by the otherwise respectable physician who uses the golden pestle and mortar over his door, viz., that a proportion of the people cannot read the ordinary sign or door plate; that as the boots in the window point out the shoemaker, the hats the hatter, so the golden tooth and the show case, and the pestle and mortar, respectively, indicate the dentist and the physician. Why does the quack use them? Simply as a catch-penny, and just because there is nothing too low to which he would not resort to trap the ignorant. Several have from twelve to fifteen signs of all sorts, paper, linen, wood, tin and brass, in every available space, and in addition, golden teeth hanging over the door, and show cases on each side. One party used to attract public attention by the eccentricities of a monkey whose gymnastics about his windows he daily superintended, until the Society for the Protection of Children interfered upon public complaint that he was trifling with the life of his little brother.

Notwithstanding the existence of two languages, and difficulties with which no other Province has had to contend, old Quebec has made solid reforms in legislation and education. The pioneers of dental reforms had obstacles entirely unknown in any other Province. The impecuniosity and the prejudice of some of its legislators revealed matters which were a public disgrace to local legislation, while the sore-heads in the profession preferred chaos to any condition in which they could not have a finger. We must recognize the strain which this placed upon the early pioneers of legislation. With the reasons for later trouble I will not deal at present, but I think every respectable member of the profession in Quebec owes a duty to investigate and reform certain difficulties. To these I shall, with your permission, refer later.

I would plead with some of the members to remove the vulgar public exhibitions at their doors of their professional and *personal* disgrace before the British Medical Association meets in Montreal in August. What opinion must the members of this distinguished Association, which elected a Canadian as its President, carry away of the social *status* of Dentistry if these degrading cases are continued? Some members only need to have their attention drawn to consider this proposal. I am sorry to be obliged to believe that there are others whose souls are so sordid and whose self-respect is so feeble, that they will listen to nothing that may woo them from their low instincts.

THE DENTIST'S EYES.

By ———

We have only two eyes. Glass ones do not take their place. We could better, as dentists, get through our duties without our legs. They are the precious windows of the body. They are the very source and centre of our daily existence. Without them we are as dead to the dental practice as if we were in our coffins. Yet the reckless way which they are being abused in our time is suggestive of the intensity of the struggle for existence. In sunlight, in shade, under gas-light, lamp-light, electric-light, etc., all day, far into the night, even on the one day of rest, many dentists now demand their functional strain, until the penalties come—headaches, eye-ache, their failure of sight: in some cases total blindness. It is a pretty severe price to pay for competition, and for the sake of the dollar. The dollar made that way is far from "almighty." Young men are now wearing glasses. Most of them are justified in their use. But why do they need them?

TAKING IMPRESSIONS WITH PLASTER PARIS.

By E. A. RANDALL, D.D.S., Truro, N.S.

Judging by the tales of woe related by some of our patients how they were nearly choked to death by the soft plaster running down their throat, there are some dentists who do not know how to take an impression properly. We are all supposed to know how to build a ridge of wax across the posterior edge of impression tray, and fit it to the mouth before taking impression, but even then we may sometimes make a mistake. In taking impression have a mouth mirror just within reach, and if you do get excess of plaster down on soft palate, reach down with mouth mirror, and one quick upward scrape, and your patient will be feeling comfortable.

Correspondence.

A BUSINESS EDUCATION.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—I was much interested in Dr. Gardner's article on a business education for dentists, and though I am perhaps personally interested as a Yankee dental drummer, I hope I may be permitted to give a bit of advice to our good friends in Canada, not meaning, however, to imply that it is not applicable as well to our friends in the United States. My experience, extending now over twenty years of the Canadian trade, has convinced me that so far as practical and scientific training and life are concerned, Canadian dentists, as a rule, hold their own end up with quite equal credit with our American dentists. I have seen all classes of operative and prosthetic work performed in Canada equal in every particular to that made in the States; but I have been amazed at the lowness of the fees for such work in comparison, and at the extension of credit given to the patients. I remember when the Canadian dentists got double the average fees, when the cost of living and practice was almost one-half what it is to day. The progressive dentist who keeps up with the times, has now to spend three and four times more money for dental goods than he had reason to lay out twenty years ago. The manufacturers not only have increased their temptations, but we have added much to facilitate work, and even the old school have got to school again, unlearn much they thought unfallible, and fall into line with the march of manufacturing—or fall out. This has probably compelled many who have feeble business ideas to go more into debt, and while the manufacturers are, I think, a pretty obliging lot, and do not, like one of your Canadian firms, add six per cent. interest to all accounts three months old, they expect to get their money. With one or two exceptions—one a notorious trickster who makes a business of swindling when he occasionally makes a business of dentistry—I have found the Canadian dentists scrupulously honest. But many of them are awful bad financiers. In fact, many of them do not seem to know the first principles of successful business management. They not only do not attend properly to their books and accounts, but they overlook the fact that by this neglect they injure their credit, and expose themselves to vexation and worry that might easily be avoided. I need not amplify to show the evils that accrue from this neglect or ignorance, but my

experience shows that it is your bad business men who are most easily tempted to fall into quackery. They resort to quackery because they fail to master business principles. If they do not thus degenerate, they simply punish themselves and their families, and in the struggle to make ends meet, they live in a mild sort of Gehenna. I have known good business dentists save more money out of a two-thousand a year practice than neglectful business dentists save out of a seven thousand practice. Therefore, I cordially approve of the proposition to make some previous business education an obligatory part of your entrance examination. Why not add a business man to your matriculant examiners? I mean all this in fraternal good will.

Yours, etc.,

A DRUMMER.

HOW TO CHECK THE QUACK ADVERTISERS.

To the Editor of DOMINION DENTAL JOURNAL :

SIR,—I do not agree with the gentlemen who think that the advice and criticism of the DOMINION DENTAL JOURNAL does no good to the quacks. If men do not know that other men despise them for their unprofessional conduct, are they as likely to reform? It is only by constantly repeating advice and warnings, that advice can be made to stick. Many of us do not need it, because we prefer to be respected by our confreres and by the public. Above all respect, I desire that of my colleagues. Those who are impervious to this sentiment, perhaps have never had a word of advice from a *confrere*, excepting that which they get through the monthly medium of the JOURNAL.

The too-prevalent disregard of ethics in Ontario may be explained as the outcome of the example set by the few "scallywags" in Toronto. They do the mischief to dental practice which the departmental stores do to business. The latter have been well shown up by the *Star* and *Saturday Night*. How shall we reach the public? Why not have a department of "Popular Dentistry" in the JOURNAL, supplying each month such popular information as we need to arouse the public to the frauds practised by the quacks and their imitators? This might be struck off in reprints each month, and officially sent to the press of the Province, with request for reproduction.

Another point. We object to the quacks advertising, but as long as they do all the advertising, and ethical men do none, just so long will the former get the inside track of the latter. Now if the ethical men would combine to insert permanently ethical cards in

the press, they would be of more money value to the publishers than the spasmodic sensationalism of the quacks. It would then pay the publishers to be on the best terms with the best paying customers. In Toronto, for instance, there would be nothing unethical if the papers contained every day a half or a whole column of the cards of the members of the Toronto Dental Society, from which, as from the Society, unethical members would be excluded. If the press cannot be persuaded to become friendly in any other way, it is perhaps a question if we can blame the publishers. They only thrive out of their advertisements, not by their circulation.

Yours,

LICENTATE.

Translations.

FROM GERMAN DENTAL JOURNALS.

Edited by CARL E. KLOTZ, I.D.S., St. Catharines.

PULPIN AND ANTISEPTIN. (By — Helles, Dentist, Berlin).— Conservative dentists have been enriched during the last year by a great many preparations, a large proportion of which are for the treatment of pulps of teeth or the antiseptic filling of roots with devitalized or decomposed pulps. All these remedies have been tried and tested with more or less good results, but some have been utter failures. The treating and capping of an irritated pulp has caused the greatest difficulties, and requires a great deal of time to prove a successful operation. Generally after treatment a temporary filling was inserted, which was left for months, to ascertain whether the operation was successful, before inserting a permanent filling. But it is very much easier to preserve a tooth with a devitalized pulp, and it must be admitted that a great many pulps fall victims to the devitalizing agent, because treating and capping a pulp is more uncertain of success than the filling of properly prepared root canals. It is unnecessary to state that a tooth with a living pulp has prospects of a longer service than one in which the pulp is dead and the canals filled. To preserve a pulp alive, one either exposed by accident in excavating a cavity or by caries is the ideal which is constantly before us, and which has been accomplished by very few, even with our best remedies at hand. It has not been possible to state with certainty that a tooth thus treated would always prove satisfactory. A great advancement has been made by colleague Schallenmüller with his two preparations,

pulpin and *antiseptin*, by means of which, so far as the present experience has shown, he has achieved, in almost every case, a rapid and thorough cure, and thereby the saving of the pulp. The effect of these preparations has its limit as well as others. With them it would be impossible to restore to life a badly decomposed pulp; but one that has been exposed for a short time, and with but slight suppuration, may be restored to its normal vitality with this remedy without much difficulty. I have used *pulpin* and *antiseptin* for some time, and am perfectly satisfied with them on account of the quick effects and favorable results, and hope they will soon be within reach of all dentists, and, as far as my experience goes, I am confident that whoever has used them would not wish to do without them. Before going further, I might remark that *pulpin* is used for treatment and *antiseptin* for capping. In describing my method of treatment I will divide it into two classes. The first and principal one is the cure and preservation of a pulp, the second is the treatment of teeth with dead pulps. An *accidentally exposed pulp* is treated with *pulpin* on a pellet of cotton and capped with *antiseptin*, which is made into a paste of the consistency of cream with oil of cinnamon. This paste is put on a piece of softened gutta-percha of the thickness of card-paper, and placed over the exposed pulp, care being exercised to exert no pressure. I do not use the gutta-percha, as there is too much danger of its exerting pressure, even with care; but, instead, place the paste direct onto the pulp and cover it with artificial dentine, or I mix a quantity of *antiseptin* with the artificial dentine and cap, and when this has hardened insert the filling. *The irritated pulp*, one that has caused pain, requires a careful cleansing of the cavity with spoon excavators. Should it be too painful to excavate, place into the cavity a little *pulpin* and cocaine (powdered). A few minutes will sometimes suffice, and the excavating may be proceeded with, but if still sensitive leave the remedy in the cavity till the following day, having temporarily filled the cavity. This treatment must be repeated till the pain has subsided, after which proceed with the capping. It is not necessary to expose a pulp for this treatment. *A suppurating pulp* that has not lost too much of its substance requires repeated treatment with *pulpin* to which a little thioform has been added, in other respects the treatment is the same as the others. Sometimes after capping a slight twinge of pain is experienced, which, however, is of no consequence, and passes off shortly, never lasting longer than the following day. Should the pain be severe, remove the capping and treat again with *pulpin*. Sensitive dentine and exposed periosteum can be successfully treated with *pulpin* and cocaine. *For root canal filling* *antiseptin* is a valuable article. After the canal of a newly devitalized pulp is opened and the nerve fibres removed, the canal is enlarged, if

necessary, and disinfected, it is immaterial how this is done, so long as it is done thoroughly. I use a 20 per cent. sublimate solution, and have good results with it. It is now filled with antiseptic made into a stiff paste with concentrated carbolic acid, care being taken to fill thoroughly to the apex, then fill the cavity with any desired filling material. *Badly decomposed pulps* of long standing are treated in a similar manner to the above. Care must be taken in removing the *debris* not to force any of the septic matter through the apex. It is well to use antiseptics before attempting to remove all *debris*. Strong disinfectants should be used in these canals, but in other respects the treatment, etc., is the same as the foregoing. Fistulous openings of the gums heal of their own accord. In many cases it is not possible to remove all the nerve fibres from the canal; these small portions at the apex of the root may safely remain, as they will create no disturbance, provided all parts have been thoroughly disinfected. Of course, the medicinal properties of antiseptic have their limits, and it will be impossible with it to effect a cure of periostitis with all its possible complications. Nevertheless both preparations may be considered acquisitions, and doubtless will find adherents. A trial will prove the truth of the assertion.—(7, *Poulson's Bericht über Zahnheilkunde, etc.*

Medical Department.

Edited by A. H. BEERS, M.D., C.M., D.D.S., L.D.S., Cookshire, Que.

THE SIGNIFICANCE OF PALATAL DEFORMITIES IN IDIOTS.—“Because departures from the normal are found physically, mentally and morally in defective classes, therefore scientific investigators have assumed that any one of these departures, occurring in the average individual, gives rise to the suspicion that the process of deterioration is already under way in him.” With this admirable thesis, W. Channing (*Journal of Mental Science*, Jan., 1897, p. 72), the author, seeks for some sound deductions on the subject of the stigmata of palatal deformities among the insane. At the outset he takes issue with those who would seek to lay so much stress upon the peculiar shape of the palate as one of the most characteristic and significant of the stigmata of degeneration. The methods of inspection are commented upon and the necessity for accurate measurement and cast-taking insisted upon, if trustworthy results are to be gained. Talbot's classification is followed and the author investigated some one thousand feeble-minded patients, taking casts of all. He had, moreover, 500 casts from average American school children. His

summary of results is as follows: 1. Two-fifths of the palates of idiots are of fairly good shape. 2. Palates of normal individuals may be deformed. 3. In the idiot it is a difference in degree and not in kind. 4. In either case it shows irregular development anatomically. 5. Palates of average children and idiots under eight years of age do not in the majority of cases markedly differ. 6. There is no form of palate peculiar to idiocy. 7. The statement that a T-shaped or other variety of palate is a "stigma of degeneracy" remains to be proved.—*Amer. Med. Surg. Bulletin, May 10th, 1897.*

TRANSILLUMINATION IN THE DIAGNOSIS OF EMPYEMA OF THE ANTRUM OF HIGHMORE.—In March, 1896, I saw a patient, a young woman, in whom I found good reason for suspecting the presence of pus in the right maxillary antrum. I therefore made an exploratory puncture with a Lichwitz's trocar through the outer wall of the inferior meatus, and established the diagnosis by washing out the antral cavity with weak carbolic lotion syringed through the trocar, and finding that the fluid as it escaped through the ostium and anterior nares was rendered turbid by a quantity of foul-smelling curdy-looking pus. I had previously ascertained that the nasal fossa was free from discharge. This procedure was undertaken for the purpose of diagnosis only, and it was intended to follow it up by making a permanent opening in the alveolus, but to suit the convenience of the patient this was postponed; and when I saw her again shortly afterwards the one syringing had apparently practically effected a cure, as she stated she had lost her symptoms and had had no discharge. On examining the nose there was no sign of pus, therefore it was decided to defer making the alveolar opening for the time being. Since then I have seen her at frequent intervals, but have never succeeded in discovering any pus in the nares, though she has suffered from slight postnasal catarrh, which made her think that her old discharge was flowing backwards into the throat. The other day she was examined by means of the transilluminator, with the result that a "very decided absence of the suborbital crescent" was observed. I again punctured the antrum as before, and expelled by syringing a very little white curdy-looking matter—certainly not more than half a drachm—quite insufficient I should say to account for the opacity, which I think must have been due to greater thickness of the anterior antral wall on the right side. The idea which suggests itself to me is, Why trouble with the transilluminator in cases of suspected empyema of the maxillary antrum when we have at hand such a simple and certain method of clinching the diagnosis as puncturing? It is practically painless (with the aid of cocaine) and free from danger. I have adopted it in a considerable number of cases

and have not seen the slightest ill consequence. I make it a rule to employ it in all cases of persistent purulent discharge from the nose, with the view of proving or excluding the presence of pus in the maxillary antrum, and have been astonished at the number of cases in which I have met with a positive result.—*E. Furniss Potter, M.D.Brux., M.R.C.S., L.R.C.P.Lond., in British Medical Journal, March 13th, 1897.*

THE PHYSIOLOGICAL ACTION OF EUCAINE. — Charteris (reprint from *Proceedings of Royal Society of Edinburgh*, Sess. 1895-96), assisted by MacLennan, has made a series of experiments on the physiological action of solutions of the hydrochlorate of eucaine and solutions of hydrochlorate of cocaine. Solutions of these salts were injected hypodermically into guinea-pigs of the same weight, and the results were compared. At first the quantity used was small, but it was gradually increased until the lethal dose of each was accurately ascertained. After repeated experiments they came to the conclusion that the lethal dose of eucaine per kilog. body weight is 0.09 g., and the lethal dose of cocaine per kilog. body weight 0.068 g. They also found that the mode of death by the two substances varied. With the cocaine salt they observed more rotatory movements of the head, more opisthotonos, more salivation, and more labored breathing, than with the eucaine salt. It was also noticed that the physiological action produced by a given dose of the eucaine salt, under identical conditions with regard to the weight of the animal experimented on. Hence the action of eucaine is slower in onset and less in intensity. As regards local anæsthetic effect, three drops of a solution of hydrochlorate of eucaine (1 in 10), when injected into the eye of a guinea-pig, induced in sixty seconds complete anæsthesia of the cornea. The pupil was not affected, and there was no subsequent irritation. When used in operations on the eye, the evidence is clear that it has no effect on the pupil. Berger, of Paris, in operating for cataract, employs first a drop of a 1 per cent. solution, and after three minutes a drop of a 2 per cent. solution. This procedure, he says, causes complete anæsthesia of the cornea. In dental practice it is found that five drops of a solution (1 in 10) injected into the gum before extraction of a tooth are sufficient to render this operation painless. — *British Medical Journal, March 27th.*

A CLINICAL LECTURE ON A CASE OF HYPERTROPHY OF THE GUMS (Delivered at University College Hospital by Christopher Heath, F.R.C.S., Holme Professor of Clinical Surgery).—I have had recently in my wards a remarkable and somewhat uncommon case of hypertrophy of the gums, on which I propose to make a

few remarks. The patient was a young man of twenty-six. The hypertrophy of the upper lip and the fulness of the cheeks were the most prominent features when the mouth was closed, but upon opening it a remarkable condition of the gums was at once visible, and the open mouth reminded one of the mouth of a hippopotamus or rhinoceros on a small scale. The history was that the enlargement of the gums was first noticed four years ago, when the patient went to the Middlesex Hospital and was admitted under the late Mr. Hulke. I am enabled by the kindness of Mr. Storer Bennett to show you two casts which he took at that time, and which show comparatively slight hypertrophy of the gums and no displacement of the teeth. Mr. Hulke cut away the hypertrophied gums of both jaws, and the patient left the hospital relieved. Three months afterward she noticed that the growth had recommenced, and though it has steadily made progress for the last three years, he has had no further advice for it. On admission here the external deformity was well marked, and on opening the mouth the gums of both jaws were seen to be enormously hypertrophied, and most of the teeth to be loosened and displaced. The palate looked at first like a cleft palate, but this was due to the hypertrophied gum on each side covering the palate nearly to the median line, where a small interval was left. This condition I have met with before, and I show you a cast of the mouth of a young lady who consulted me ten years ago, in whom a similar condition existed. As the parts are evidently very vascular, and as I knew by previous experience of similar cases that the bleeding would be free, I took the precaution of having the patient in the recumbent position, with his head dependent over the operating table. I then rapidly extracted all the loose teeth of the upper jaw, leaving only the two canines, which were firm, and cut away with scissors the hypertrophied gum down to the alveolus, the edge of which I removed with bone forceps. The bleeding was free, and especially from the folds which enveloped the palate, but was stopped partly by the use of Paquelin's cautery, and partly by plugging the sockets of the teeth. The patient made a good recovery, and a fortnight later I performed a similar operation on the lower jaw, removing all the loose teeth except the canines and bicuspid, and clearing away freely the hypertrophied gums. The patient's condition now, two months after the operation, is very satisfactory, the gums being in a healthy condition, and there being nothing abnormal beyond a little looseness of the mucous membrane of the lips. A microscopical examination of the parts removed, by Mr. Drew, showed that the mucous membrane covering the growth was healthy, the bulk of it being composed of delicate bundles of wavy fibrous tissue, which interlaced. Between the bundles were numerous cells, in some places

forming large clusters. Numerous vessels were scattered through the growth. Hypertrophy of the gums is a by no means common affection. The first case recorded was, I believe, by Salter, the case occurring at St. George's Hospital in 1859, under Mr. Pollock, in a girl aged eight. Salter speaks of it as a congenital affection, but this, I think, is a mistake, for the affection, though occurring in children, has never, so far as I know, been noticed at birth. Just thirty years ago I saw a case in this hospital under Mr. Erichsen, in a child of two and a half years, in whom the affection had shown itself at the age of seven months, when the teeth began to appear. Mr. Erichsen removed the exuberant growth freely, and cauterized the cut surfaces, but a permanent cure was not brought about, for, when seven years of age, the child was brought before the Royal Medical and Chirurgical Society by the late Dr. John Murray, to illustrate a paper on Three Peculiar Cases of Molluscum Fibrosum in Children of One Family. Mr. Erichsen's patient was the eldest of the three, and her portrait (which was shown) bears out the description given of the hypertrophied condition of the gums. The other children, aged four and two, had similar conditions of the gums. Ten years later I had a similar case in this hospital in a girl of four and a half years, who was one of five otherwise healthy children. The swelling of the gums had been noticed for two years, and when she was admitted the gums were enormously hypertrophied, as is shown in the casts taken at the time. Under chloroform I removed each hypertrophied gum and alveolar border in one piece, which I have had preserved in the museum, and she made a good recovery. About the same time I had a case in private in the person of a young man aged twenty-six, in whom the hypertrophy affected only one side of the lower jaw, extending from the right wisdom to the left canine tooth. The affection had been noticed from early childhood, and gave no pain. Here I removed the affected alveolus with bone forceps, and a complete recovery ensued which I know to be permanent, as I happen to have heard from the patient quite recently. It is remarkable that in most of the cases of children affected by hypertrophy of the gums some want of mental development was noticed, but certainly in the two young men upon whom I have operated no such deficiency was to be observed. A remarkable instance of the disease, also occurring in an adult, was recorded by Mr. MacGillivray, Surgeon to the Bendigo Hospital in Australia. The patient, a woman aged twenty-nine, seemed to have suffered from the affection in both jaws soon after birth. At the age of ten portions of the gum were cut away, and several teeth extracted, and she had herself in later life cut away portions of the projecting gum with a razor. All these operations gave rise to severe hæmorrhage. The enormous growth seemed to

have originated mainly from the palate portion of the gums, the labial surface being comparatively sound. Mr. MacGillivray removed the hypertrophied gums and alveoli with perfect success. A condition of outgrowth from the gum, due to the irritation of tartar or of artificial teeth, somewhat resembling hypertrophy of the gums but much less vascular, is known as polypus of the gums; and it happens that I had a remarkable instance of this last week. You will remember an old blind woman who was sent to me with a large fleshy mass projecting from the upper alveolus, which I removed at once by tearing it from its attachment with the finger, the resulting hæmorrhage being slight. We found that it had sprung from the upper alveolus, in which the teeth were broken and encrusted with tartar, and it is evident that this fleshy mass was nothing more than a local hypertrophy of the gum, the result of irritation. This must not be confounded with the true fibrous epulis which springs from the periosteum of the alveolus, nor again with the vascular myeloid growth which springs from the interior of the alveolus, and forms a maroon-colored tumor—badly called a myeloid epulis—of which we have recently had an example in a young girl aged seventeen.—*British Medical Journal*.

Selections.

FACIAL RESTORATION.

The invention and construction of artificial substitutes for parts of the human organism which have been lost or injured by accident, or otherwise, have of late years engrossed the attention of many. In the race for honors of this kind the dentist has not been left behind. From time to time cases of deformity and disfigurement are brought under his notice, and his special knowledge of mechanical processes enables him to exhibit his skill, and affords a wider range to his ingenuity than is required for the mere replacement or reparation of the teeth.

It may be interesting to linger for a few moments upon some previous attempts to remedy facial defects, and to restore to the ruined features a semblance of their original form. In 1804 Dubois de Chemant* (the inventor of mineral teeth) relates that with his mineral paste he replaced "the under lip, the chin, and several teeth" for "the daughter of an English physician, which had been lost by the violence of the small-pox"; and, in 1828, James Snell,†

* De Chemant.—"A Dissertation on Artificial Teeth" (London, 1804), page 37.

† Snell.—"On Obturateurs or Artificial Palates, and Deficiency of the Lower Jaw, Lips, and Nose" (London, 1828).

a surgeon-dentist of London, published a book on "Artificial Palates, and Deficiency of the Lower Jaw, Lips and Nose," wherein he records several successful cases. It would appear that, prior to this, little attention had been paid to the matter beyond the invention of obturators, since Snell claims for his book the distinction of being the first work written exclusively on the subject. De Chemant's idea is original in its conception and practice; but as neither of these writers left anything but bare records of their cases behind them, the art of photography being then but a recent discovery, and scarcely in the initial stage of its development, we are unable to form any judgment as to the extent of their success. During the last fifty years the gradual progress of knowledge on all subjects intimately connected with our existence or welfare, bringing increased methods of manipulation, has led to a keen competition in inventive skill, and it is said that the artificial nose maker has established for himself a separate department in trade. So long as defects are confined to external parts of the face, the artificial nose maker may be able to supply the deficiency, but when the injury involves the loss of portions of the palate, jaw, or other parts of the dental apparatus, he finds himself outside his province unless he has a sound practical knowledge of dental mechanics, by which means only the requirements of such cases can be met.

In the March number of the *Quarterly Circular*, 1889, we illustrated a case of facial disfigurement restored by means of an obturator and artificial cheek and eye, by Mr. Hayman, of Bristol; and in the June number of the same year Mr. Andre, of London, supplied us with the description of a case which he had restored by means of an artificial nose and partial denture. Both these cases were successful.

But what is probably one of the most unique cases of facial restoration has just been effected by Mr. S. Brock, of London, in conjunction with Mr. Hudson, an artist friend of his. The history of the case is as follows:

In April, 1893, two young miners, William and John Veale, natives of St. Ives, in Cornwall, owing to the gradual decline of the mining industry in that county, left England for Bolivia in South America. They at once found work in the mine of the Komer Kocha Silver Company. In November, 1894, the younger brother, John, died; and, shortly after, the Komer Kocha Company failed, whereupon the surviving brother entered the service of the Royal Silver Mine, Potosi. His account of the accident which there occurred to him is as follows:

"About midnight on March 31st, 1895, being in charge of the boring machine, I bored five holes and charged them with dynamite. I directed the native with me to fire two of the fuses whilst

I lit the other three. We then retired to a place of safety. The report followed in due course, and after waiting the regulation half-hour I went back alone to see the result. Just as I got within twelve feet of the holes there was a terrific explosion, and I remember nothing more.

"When picked up some time after, I was found to be terribly injured. A piece of rock had swept across my face, carrying away both my eyes, nose, upper lip, part of both cheeks, and upper jaw. I lay apparently lifeless for two days, and the local doctors, think-

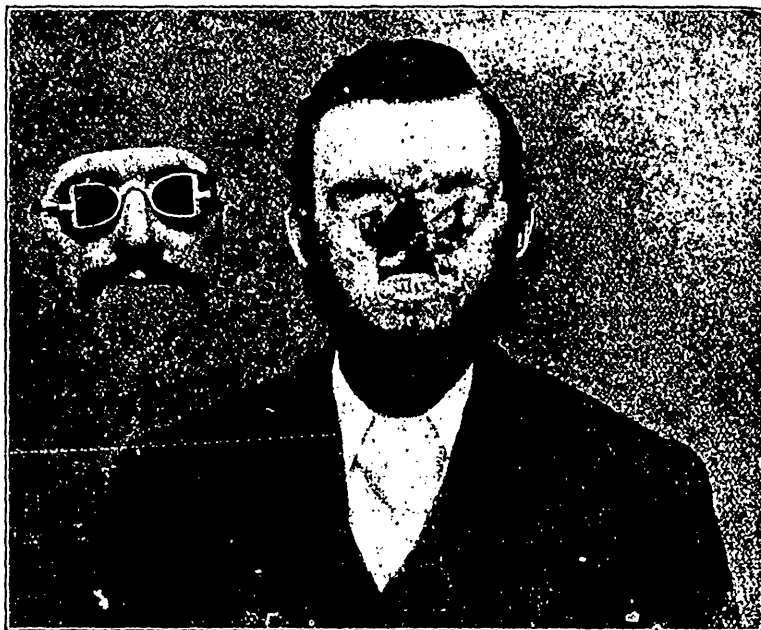


Fig. 1 shows condition of the face before treatment, and the mask away from the face.

ing recovery impossible, ordered my coffin. However, as signs of life became more evident, some attempt was made to dress my wounds, and after twenty-one days' unconsciousness I gradually awoke to find myself in so pitiable a plight that I could not then be thankful for life, but could only regret that I had not been allowed to die." (See Fig. 1.)

To intensify the disaster, the Potosi Bank, in which Veale's savings were deposited (some £75), failed two months later. The unfortunate man left Potosi in August, 1895, arriving in England in

October. Shortly after this he came under the notice of Mr. S. Brock, to whom we are indebted for the following details :

"I first saw Veale in November last. A medical man in Penzance recommended him to visit London, to see Dr. Critchett, of St. Mary's Hospital, in order to ascertain if anything could be done for his sight, as Veale thought he could distinguish strong light from darkness ; it is probable that some small portion of the retina may have been left behind which caused the sensation. He was detained at the hospital some four or five days, and then sent away hopeless. When he came under my notice, I considered the possibility of replacing the palate and teeth, and, with the aid of Mr.



Fig. 2 shows the artificial upper denture.

Hudson, the cheeks, nose and lip. I must confess, however, that on surveying the void in his face, I was conscious of the extent of the undertaking, and of the difficulties which might arise. Both eyes, the floor of the orbits, and the nose had disappeared ; the anterior part of the superior maxillary from the second bicuspid on the left side to where the first molar should have been on the right was also missing, and likewise all the teeth with the exception of the second bicuspid and first and second molars on the left side. The second molar was, however, so extensively decayed that I decided to extract it. There was thought to be some danger in doing this owing to the shattered condition of the jaw, but, with the assistance of Mr. Braine, gas was administered, and the tooth

successfully extracted; since then, by the way, the third molar has partially erupted.

" Dr. Bland Sutton, who saw the patient at this juncture, strongly advised a further delay of six months to allow the parts to more thoroughly heal. Veale accordingly went back to St. Ives and returned in the beginning of May.

" I then took an impression of the remaining parts of the mouth in beeswax, and cast a model in plaster, from which a special tray was made. With this a fresh impression and model were taken and cast, moulded in sand in the ordinary way, and a gold plate

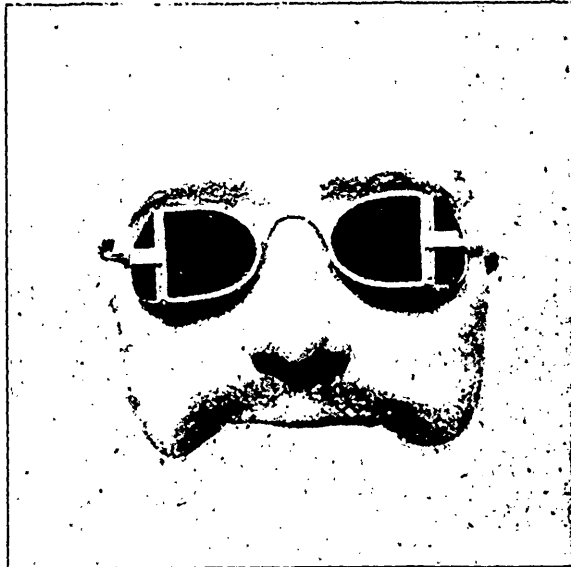


Fig. 3 shows the mask.

was 'struck up' to the shape. On the posterior margin of the plate I soldered a crescent-shaped piece of plate about half an inch wide, the anterior and free edge being raised to come in line with the lingual surface of the palate. This, beside securing strength, allowed of the surface of the vulcanite being brought flush to the edge of the gold, instead of having a chamfered edge, which invariably curls away from the plate.

" Before mounting the teeth I also soldered a gold-pointed tube on the anterior part of the plate to project as near as I could judge towards the centre of the nose, the object of this being to connect the denture to the mask. The teeth were then mounted and the

plate tried in for the bite, at which stage I had the satisfaction of hearing the patient speak distinctly.

"After flasking and clearing away the wax, a thin layer of rubber was packed over the surface of the gold; the outer portion with the teeth was also packed with just sufficient rubber to hold them together and to gain enough strength. The remaining part was then filled with plaster, and a tin plate, previously struck up to the shape of the palate, was placed in and the flask closed. When the plaster had set, the flask was opened, the tin plate and superfluous



Fig. 4 shows the face with artificial upper denture in position, and the mask away from the face.

portions of plaster were removed, a fresh layer of rubber was placed in position, and the flask was again closed and put in the vulcanizer. After vulcanization the plaster was cleared away through two holes in the front, one on each side of the gold pin. By this arrangement the utmost lightness was obtained. (See Fig 2.)

"Mr. Hudson and myself then attempted to take a plaster cast of the disfigured face with the denture in position. We first tried oiled silk to prevent the plaster adhering to the face, etc., but this proved too unyielding, and, the mould being very imperfect, we

next tried a layer of moistened tissue paper, which answered admirably. From the mould thus obtained a plaster model was cast, upon which Mr. Hudson skillfully modelled up the missing portions of the face in wax. From this a plaster mould and model were taken and cast, and a zinc die made with a lead reverse. The mask is made of silver, and the three main portions (namely, the two side pieces and the centre strip) are soldered together.



Fig. 5 shows the patient's present appearance.

"This completed the rough portion of the work. Mr. Hudson then, with much labor and artistic taste, carved the zinc model wherever undercuts were desirable, notably the inner and outer parts of the nostrils, the mask being chased into them. Two small silver tubes were then shaped and soldered into the nostrils, and all the joints carefully finished. A silver tube was made to slide over the gold pin fixed to the denture, and this was then soldered to the inner surface of the mask in the centre of the nose,

and strengthened in position by a piece of silver plate with a hole in the centre, soldered on transversely at the back of the nose.

"The upper lip is merely a piece of red rubber tubing tied at each end, and held in position by three catches soldered inside the silver lip; the rubber coming just below the edge of the silver lip allows the patient's lower lip to rest comfortably against a flexible surface. This is easily removed for cleansing purposes—in fact, several were



Fig. 6 shows the patient's present appearance in profile.

made for the patient as a store. A strong pair of blue silver-framed goggles with the ordinary retractor fastenings behind the head were constructed, and a small pin was soldered to the back of the centre of the bridge of the goggles; this pin fits into a hole made in the mask, thereby preventing the goggles from slipping. After this Mr. Hudson painted the mask whilst it was on the patient's face. A slight moustache and eyebrows were affixed, the patient's own whiskers being laid under contribution for the hair required for them." (See Figs. 3 and 4.)

"Too much stress," continues Mr. Brock, "cannot be laid upon the work of the artist in this case. The exterior of the mask is so skilfully modelled, and the combination of color, with its many tones of shade, imitates so admirably the natural complexion of the wearer, that a close observation of the face would be necessary to detect its artificiality."

We have had the opportunity of examining the zinc model cast from Mr. Hudson's model of the restored face, and have no hesitation in saying that it exhibits the artistic power of a master hand.

Of the denture and mask the patient speaks as follows :

"Not the least part of my trouble since recovery has been the necessity for wearing a heavy veil. I am thankful to say this is no longer needed, for by the kindness of two gentlemen who became interested in me (Mr. Brock, dentist, and Mr. Hudson, artist), an apparatus has been constructed which enables me to speak distinctly, to eat, drink, and smoke with comfort, and to appear in public without attracting attention. This is all very marvellous to me, and I need hardly say how deeply grateful I feel for their gratuitous services, and also for the kindly help of their many friends, whose generosity enabled me to live in London whilst the work was being carried out." (See Figs. 5 and 6.)

A subscription has been started with the object of securing Mr. Veale a small annuity. Donations may be sent either to the Rev. James Pullein Thompson, Hon. Sec. of the National Blind Relief Society, 27, Tite Street, Chelsea, London, S.W. ; or, the Branch Manager of the City Bank, 6, Sloane Street, London, S.W. Cheques should be crossed "The Veale Fund Account."—*Ash's Quarterly Circular*.

[We are under obligations to Messrs. C. Ash and Sons for the use of the excellent cuts in the above article.—ED. D.D.J.]

NITROUS OXIDE GAS.

Hardly a week passes but we receive intelligence of fatalities from the use of chloroform. We have always unhesitatingly denounced its use in dental practice, and recommended the employment of nitrous oxide, or this gas supplemented by ether instead. It has lately been our lot to chronicle the death of a patient under the latter combination of anæsthetics, and to publish the opinion of the medical man, that death was due to "the paralyzing action of the gas upon the heart." If this opinion had been allowed to go forth unchallenged and uncontradicted, it might have raised grave fears in the minds of those who are daily accustomed to administer this safest of anæsthetics. Dr. Dudley

Buxton, however, in our last issue, has dealt with the report with the skill of an acknowledged expert, and has given a satisfactory denial to the statement made that gas paralyzes the heart.

The facts, briefly recapitulated, are as follows. A young, strong, healthy woman who has no morbid fear of an anæsthetic, or of the operation, namely the extraction of some decayed teeth, is given gas, followed by a drachm and a half of ether. The operator extracts three teeth, when suddenly the patient changes color, stops breathing, and in spite of stimulants and artificial respiration, never recovers consciousness. What caused death? The medical man who made the post-mortem examination, in reply to the coroner, affirms "I think the gas was probably the cause, it paralyzed the heart." Dr. Buxton agrees with the medical man that syncope caused death, but differs from him in his theory that the syncope was produced by the gas, if the gas was properly given. He seems to think that the anæsthetic was skilfully administered. Dr. Buxton has shown, and his statement has been confirmed by other anæsthetists, that nitrous oxide gas stimulates the action of the heart, if not pushed to the extent of depriving the tissues of oxygen to a dangerous extent. If this deprivation takes place for too long a period, syncope may result. From the evidence, two and a half to three minutes were expended in producing anæsthesia. "If this statement is to be taken literally, it must imply rebreathing of gas and ether, and a prolonged period of deprivation of oxygen." The usual time employed in producing anæsthesia with gas is about fifty seconds, and this is usually accompanied by cyanosis and jactitation, warning the administrator that the limit is reached. We have known cases in which gas has been administered for three minutes, but these were cases of advanced phthisis, where the breathing was very shallow. If the point approaching asphyxia is reached, whether by overdose of gas, interference with respiration, by the tongue being forced back, or some blood or foreign body in the larynx, the strain on the heart, as Dr. Buxton points out, is very severe. This strain may be aggravated by the upright position in the chair, and by weakness produced by fasting or any other cause. The patient, in this case, presumably had not taken food since the morning. Dr. Buxton, however, does not think that any deprivation of oxygen, either from the anæsthetic, or as the result of the operation, can be adduced from the evidence. He is inclined to think that death was caused through shock to the patient, whose vitality was at a low ebb in consequence of a prolonged fast.

What are the lessons to be learned from this distressing case? We are so accustomed to use nitrous oxide gas at all times in our everyday work, that the very idea of a fatality rarely, if ever, occurs to us in hospital or private practice. Yet this sad occur-

rence, "though neither nitrous oxide gas, or ether, are discredited by it," must bring home to our minds the fact that these operations are never wholly free from danger, and that we should be armed with the necessary drugs and instruments, as well as with the knowledge of how to use them to the best advantage, as also the methods of forced respiration and inversion spoken of by Dr. Buxton. While being careful not to administer the gas too soon after the patient has had a full meal, let us also be careful to enquire how long the subject has been fasting. We sometimes have patients wishing to take gas who from want of food and sleep have allowed their vital forces to sink to a very low ebb. In such cases it would be wiser to recommend the ingestion of some strengthening and quickly digestible food before the operation is proceeded with. We cannot think that we know every factor in this sad case. Such occurrences are, we are thankful to say, very rare, but we must let them serve to act as a warning to us when dealing with our fellow man, to take every precaution against such a disaster, and to omit nothing which may tend to avert such an end.—*Editorial, British Journal of Dental Science.*

CEMENT AND AMALGAM FILLINGS.

By H. BALDWIN, M.R.C.S., L.D.S.ENG.

On first making experiments out of the mouth with the mixture of oxyphosphate cement and amalgam I found that its conductivity to heat was very high, too high to allow of its being used in sensitive teeth with large cavities; this consideration, coupled with the likelihood of its becoming honeycombed on the surface, owing to the solution of the cement, led me practically never to use it.

I was struck, however, by the facility with which the two materials could be mixed together, and the readiness with which the oxyphosphate laid hold of the amalgam. From this the idea arose that it would be possible to line a cavity with the cement, and while the cement was still soft to fill the rest of the cavity with amalgam, thus combining the real advantages of both materials without the disadvantages of an intimate mixture of them.

I commenced filling large crown cavities in the mouth in this way, practically sticking the amalgam in with the cement. Being pleased with the results, very gradually I extended the range of cases in which I followed this method, till finally I arrived at the position of filling the greatest possible variety of cavities, which

previously I would have filled with amalgam alone, and, furthermore, of filling a large number of cavities, in this way, which previously I would have filled with gold. This position I still maintain.

The *modus operandi* is as follows: The cavity should be excavated with the usual care as regards removal of the decay, but the amount of undercutting which is necessary is very much less than for either amalgam or gold. The cavity should be thoroughly dried. The amalgam should first be mixed and of a convenient sort of consistency. The cement should then be mixed and of a decidedly thin consistency, not much thicker than would be used for fixing crowns. The cavity should then be filled with cement, preferably by means of the same spatula as has been used for mixing it. Then immediately a large piece of the amalgam should be pressed into the cement and, by means of a smooth rounded instrument, should be driven more or less firmly home, working from the centre to the circumference, and so expressing much of the cement on all sides. The edges of the cavity should then be quickly cleared of both cement and amalgam, by means of spoon or other excavators, till not a trace of anything is left at any of the edges, especially at the cervical edge, if the cavity is an interstitial one. This obviates the danger of getting the cement exposed on the surface when the work is finished. The remaining cavity should then be filled up with pure amalgam, carrying it down to the cervical edge in small pieces, with perhaps a trifle more mercury added so as to ensure its going down completely, and then finishing with harder amalgam and squeezing with bibulous paper in the well-known way. A matrix should be used in large composite cavities and may be applied either before commencing to fill or immediately after packing the first piece or pieces of amalgam and clearing the edges. Putting on the matrix after clearing the edges keeps the matrix clean and free from cement.

The cases for which this composite filling is suitable are practically all those cases which are generally considered suitable for amalgam alone, and a great many cases which are generally considered suitable for cement alone, and in addition a great many cases which would otherwise be suitable only for gold. All large interstitial cavities in molars and bicuspid and crown cavities which are fit to receive a hard filling at all may with propriety be filled by this method. There is little in common between a filling of this sort and an ordinary amalgam filling. Ordinary amalgam as a filling material is open to many objections which the combination is entirely free from, and the combination presents a number of merits which belong to it alone. Thus, to compare it, point by point, with gold or amalgam: (1) It requires a much smaller sacrifice of healthy tooth substance; (2) it leaves a

stronger tooth; (3) it necessitates much less pain in excavating; (4) valuable time is saved in excavating; (5) it interposes a non-conducting layer between the sensitive dentine and the metal; (6) it adheres to the cavity; (7) it is more water-tight; (8) compared with amalgam, at all events, it does not stain the tooth, nor show through the thin enamel of a nasty color; and (9) it is quicker than gold, or even amalgam, *i.e.*, when amalgam is inserted with a due amount of care.

I venture to submit: (1) that all those cases of cement fillings in back teeth which one so often meets with as permanencies would be better treated by coating the cement with amalgam in this way; (2) that most teeth which are filled with cement as a trial for a temporary purpose would be better filled as a permanency in this way. Where the cement will be tolerated this combination will equally be tolerated, and whereas it is exceedingly difficult oftentimes to pack simple cement tightly against the cervical portion of a deep interstitial cavity, it is perfectly easy, by means of the amalgam, to drive the cement well home. In passing, I would like to give it as my opinion that the supposed tendency of cement to undergo specially rapid solution at the cervical edge does not exist. The disappearance of the cement and appearance of a cavity in this situation is due to the cement never having been in absolute apposition with the tooth at the point, or to the decay there never having been thoroughly removed. The difficulty of packing plain cement at that point is not, I fancy, generally realized, and lies not only in the remoteness of the situation, but in the fact that a little moisture frequently bedews that part, and that the gum presents a prominent and possibly overhanging edge, which edge, when pressed upon, is specially liable to give forth a serous or sanious oozing; (3) that nearly every amalgam filling would be improved by being inserted in this way. I have used this method with gradually increasing frequency since my early days of practice, thirteen years ago, and to-day I hardly ever put in an amalgam without the preliminary adhesive stratum of cement. Of course, care and neatness are necessary in this as in every dental operation, and it does not do to leave a layer of cement outcropping at the edges. In a certain proportion of difficult cases this ontcropping may occur, but if the greatest care be used it will only be in a small proportion, and can easily be rectified later, when its results begin to show. I would point out, moreover, that amalgam affords such an efficient means of packing home the cement that, even should the cement become exposed, it proves unusually durable.

The accompanying are specimens of this kind of work in large complicated cavities. One tooth and filling has been sawn through. This one shows how small a stratum of cement is

necessary to prevent leakage, the cement evidently controlling the shrinkage or warpage of the amalgam. Presumably such alteration does go on in the amalgam, but being held close to the tooth by the cement goes on entirely at the surface. The other teeth were smashed through with cutting forceps.

The teeth were all soaked in water for some little time, and then dried in the usual way before filling, and immediately after were submitted to the ink-test for about forty-eight hours. One specimen shows the filling standing erect, attached by a rather narrow base, but held firmly to the tooth by the cement, although the tooth was broken open by means of cutting forceps.

This method is sticky and messy I admit, but increased efficiency is obtained, and practice soon enables one to overcome its difficulties and in a very large number of cases to produce a filling which is quicker, easier, less painful at its inception, less liable to subsequent fracture of its retaining walls than can be produced in any other way.—*The Transactions of the Odontological Society.*

CONGENITAL TEETH.—In reporting some cases of congenital teeth not long ago, Dr. J. W. Ballantyne took occasion to point out that the fact that infants are occasionally born with one or more teeth already cut was well known to the ancients. Indeed, as he showed in a paper on the Teratological Records of Chaldea, instances of the kind are mentioned in the very ancient cuneiform inscriptions found at Nineveh. As showing the meaning which was ascribed to the occurrence, Dr. Ballantyne quotes the following passage from Holland's translation of Pliny's "Natural History." "Certaine it is also that some children are borne into the world with teeth, as M. Curius, who thereupon was surnamed Dentatus, and Cn. Papyrius Carbo, both of them very great men and right honorable personages. In women the same was counted but an unluckie thing, and presaged some misfortune, especially in the daies of the KK. regiment in Rome; for when Valeria was born toothed, the wizards and soothsayers being consulted thereabout, answered out of their learning by way of prophesie. That looke into what citie she was carried to nource, she should be the cause of the ruine and subversion thereof; whereupon had away shee was conveyed to Suessa Pometia a citie of that time most flourishing in wealth and riches; and it proved most true in the end, for that citie was utterly destroyed." M. Schurig, in his "Embryologia Historico-Medica," published in 1732, collected a number of cases recorded by other writers up to that time. Tradition has it that several men famous in history were born with teeth. As instances, Dr. Ballantyne names Richard the Third, Louis the Fourteenth,

Richelieu, Mirabeau, and Mazarina. Shakespeare refers in several places to this belief regarding Richard. In "Richard the Third" the Duchess of York says :

Marry, they say my uncle grew so fast,
That he could gnaw a crust at two hours old ;

In the same play, Queen Margaret refers to Richard as :

That dog that had his teeth before his eyes.

Richard himself says :

For I have often heard my mother say
I came into the world with my legs forward ;

* * * * *

The midwife wonder'd and the women cried
" O Jesus bless us, he is born with teeth !"
And so I was ; which plainly signified
That I should snarl and bite and play the dog.

Congenital teeth are rare. Of 17,578 infants born in the Paris Maternity between 1858 and 1868, only three had teeth, that is, not much more than one in 6,000. Yet Dr. Ballantyne has collected seventy records of cases from literature, and doubtless, as he says, many have escaped notice. In respect of sex, the female shows a slight preponderance, which, if there be any truth in Richard's theory of the significance of congenital teeth, may perhaps be expected to increase with the evolution of the New Woman.—*British Medical Journal, March 20th, 1897.*

Reviews.

Undergraduate Journals. Some of the older school of practitioners have been dubious as to the advisability of encouraging dental periodicals specially published by the students of the colleges. It was thought that they would distract the undergraduates from their less ambitious routine of study, and tempt the prentice pen to write less sense than nonsense. However, the students might fairly retort that graduates and even teachers have sometimes written nonsense, and undergraduates have written wisely. We are rather in favor of giving the boys their opportunity to measure pens with their elders, and so far, the journals published by those of several of the colleges in the United States have been creditably conducted. The last claimant for undergraduate favor is the *Penn Dental Journal*, published by the students of the University of Pennsylvania Dental Department. The communications

are very well written and the *esprit de corps* as shown in the photographic groups of the fine young fellows who constitute the James Truman, the Edwin T. Darby, and the Edward C. Kirk Societies is very interesting. The fidelity of the teachers in the American schools is thoroughly appreciated.

Appleton's Popular Science Monthly for June contains several especially timely articles. "The Evolution of the Modern Heavy Gun," by Prof. W. Le Conte Stevens, describes the wonderful advance made in this department during the last fifty years. "The Silent City of the Muir Glacier" is a sharp little article by President David S. Jordan, giving another illustration of the gullibility of the average citizen. David A. Wells's series is represented this month by a chapter on the "Forms and Nomenclature of Taxation," in which he deals at some length with the relative value of the direct and indirect forms. "Suicide and the Environment," by Robert N. Reeves, is a discussion of the causes for the increase of suicide during the last decade. In the June installment of Prof. W. Z. Ripley's important series on "Racial Geography," he shows that the notion of a single European or white race is untenable, and that there are evidences of three original and distinct types. "Globe Lightning," by M. Hagenau, gives a number of instances where this curious electrical form has been witnessed, and some speculations as to its probable cause. W. H. Ballou contributes a timely paper on the coming congress of the "World's Geologists at St. Petersburg." Mrs. Helen Kendrick Johnson discusses the important question of "Woman Suffrage and Education," and shows the stupidity of the clamor for the general admission of women into men's colleges, as if women could obtain education in no other way. Some interesting data regarding the early use of alcoholic drinks are given by Dr. C. E. Pellew in a paper on "The History of Alcohol." "The Public and its Public Libraries," by John Cotton Dana, deals with the best methods and ideals for the modern public library. The important place which science holds in modern education is called attention to by M. P. E. Berthelot. The subject of the "Sketch" this month is Richard Owen, of New Harmony, geologist. "Pernicious Legislative Activity" and "The Postal Union Congress" are the titles in the Editor's Table. New York: D. Appleton and Company. Fifty cents a number; \$5 a year.

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"OUR QUEEN! GOD BLESS HER!"

It is always in order for Canadians to give expression to their loyal devotion to their Queen. There is no incongruity in a purely professional journal uniting with the daily press in repeating our pride in our allegiance, our unswerving fidelity to British institutions, and our gratitude to the King of Kings for having given our Empire so wise and good an earthly sovereign, who has reigned in the hearts of her people for sixty years. Quite apart from the interesting retrospect of the progress of dental science and art within that period, we are more than justified in the contemplation of Britain's greatness, and her influence for peace, while as the Canadian outpost of that Empire, we may feel a modest pride in our own share in its development.

Sixty years ago the science, art and literature of dentistry were meagre. Hunter, Sydenham, Sir Astley Cooper, Sir Charles Bell and Robert Blake had contributed works of some merit upon the natural history and diseases of the teeth. Mr. Joseph Fox, Surgeon Dentist to His Royal Highness the Duke of Kent, father of Queen Victoria, Mr. Thos. Bell, and others, published excellent works, illustrated with copper-plates, on the structure and diseases of the teeth. One could not obtain to-day a more comprehensive

idea of the progress of dentistry than to compare these productions, and the principles and practices they enunciated, with our modern text-books and journals. It would be a fascinating story for some of our contributors to undertake, and it is *appropos* to remember that the first movement which had any practical result towards the organization of dentistry as a distinct profession was almost coincident with the accession of the Queen to the throne. It is here recalled merely as a coincidence; but it is well to remember that no previous sovereign recognized so fully the importance of the dental profession as our own beloved Queen. The honor of knighthood, conferred upon the late Mr. Tomes, was a distinct recognition of her intelligent knowledge in this direction, while that of Sir Edward Saunders, added to his own personal worth, gave a social status to the profession in Britain almost equal to that bestowed upon the older professions of law and medicine.

Her Majesty, and indeed all the members of the Royal Family, have earned the love of their subjects, not because of any awe-inspiring or ancient reflection from a royal throne, but more because they have individually identified themselves as much as possible with the sorrows and sufferings of the people and have labored for the amelioration of the condition of the poorer classes. No worthy object of public benevolence has ever appealed to their recognition in vain, and if anything has tended to make happy the life of the sovereign it is the recollection of the early and constant devotion to the same objects of her late Consort, "Albert the Good." Not only the British Empire, but the world at large, has been the better for the example and the faithful labors of the Queen and Prince Albert.

To our cousins over the border, some of whom may wonder at our testimony in this place to the Queen we love, we have only to retort in kindness, "Your kindly people have fully respected her; your best men and women have felt the value of her influence; your Presidents have one and all borne testimony to the blessing the British Empire enjoyed in having a woman on its throne who has completed a reign of sixty years without a stain upon her personal or official life."

Few countries in the world have made greater progress in a quiet and substantial way during this reign than Canada. We are not given to rhetorical outbursts of bombast as to our progress. Our future, as we Canadians are more than ever determined to make it, as an integral part of the British Empire, will demand from us more unselfish service in the interest of Imperial unity and peace. In these interests there is no sacrifice, no suffering too great.

FORGIVE BUT NOT FORGET.

“Is there any use in preaching professional morality? Is there any hope of converting the quack and the quack imitator from the unethical error of their ways? Is there anything to be gained in favor of the dignity and respectability of the profession, by classing these practitioners among the goats, and stigmatizing them by a code of ethics?”

If this method of reasoning were applied to public morals, we might dispense with the pulpits, we might relax the moral restraint of public opinion, and let legal restraint degenerate. Shall we cease to raise the voice of warning against vice because sin is so common? Shall we stop fighting the drunkard-maker because the rum-shop flourishes? Shall we begin to believe that there is no use in jails and penitentiaries, and that criminals can be converted into shining lights of sainthood by mere moral suasion? Philanthropists there are who object to capital punishment, but even they do not propose to abolish the penitentiaries—just yet.

That sort of sentimental theory is pretty well exploded. We invite our readers to name one instance in the whole history of humbug and quackery, when a quack was persuaded to become an ethical practitioner by “brotherly love.” We can name several where they have been influenced by public exposure, and the fact that their quackery did not pay. Our civil courts have the records of others, who were only “persuaded” by the powerful argument of prosecution. If the quack feels that he can be indifferent to the ethics which govern the rest of us, until he makes a practice—and perhaps money—by his imposture, and can then in a twinkling abandon his quack methods, and claim equality with men who have always been ethical, the fundamental idea of the code of ethics becomes fictitious. The thief may reform, and become honest, but he has to suffer forever the penalty of his crime in the public suspicion and avoidance. Men who have always been honest do not take kindly to reformed thieves, however much in their hearts they may pity them. We have no sympathy with the flabby sentimentality, which thinks that the open quacks can ever be accepted in ethical society upon a par with those who have always been ethical. We may forgive a reformed quack, but he cannot undo the mischief he did, either to himself or the profession. The sinner may have his sins forgiven, but no power on earth or in heaven has ever enabled him to obliterate the direct penalty of his sin. Variola may be cured, but the marks remain. When those who are tempted to imitate quack methods fully realize these facts, the temptations to err will have more restraint.

A VERY WISE RESTRICTION.

A wise law has been inaugurated in Ontario with reference to the number of students each licentiate can have indentured. Many unfortunate young men were induced by the quacks and the quack-method imitators, to swarm into these offices, not only by false representations, but by promises of a commission on cases they managed to secure outside, and in several instances a licentiate has had no less than seven and eight. The students did the bulk of the artificial work in the laboratories, and made themselves generally useful. It is natural to expect that those among them who discovered the cheat would hasten to seek release, and that those who were of the same kith as their "preceptors" (!) would turn out, in time, full-fledged quacks. The same wholesale manufacture has been going on in Quebec by the same kin, and the Quebec Board would do well to stop it at once. In spite of the proverb, it is sometimes "too late to mend." The Ontario Board has passed a law prohibiting any licentiate from indenturing more than two students. The quacks do all they dare to degrade the profession. The Boards should in every constitutional way do all they can to expose and throttle the quacks.

AT LAST!

For many years we have been hammering away through the JOURNAL, in addresses before Associations, etc., on the subject of the duty the profession owed to the public, to supply some antidote to the presumption and the fraud of the quack advertisers. Everybody had a panacea, but nobody applied it. It would have been far more satisfactory if something had been done years ago, but better late than never. So far as the scope of the JOURNAL permitted, we feel that we have been doing our duty; but if the principles herein advocated have not been brought before the public through the press and otherwise, it is the fault of the profession individually and collectively. It must be apparent to our readers, that it is hardly our province to do this work for the public as well as the profession. That the JOURNAL has been influential in dissuading some practitioners from following in the wake of the quack advertisers, we may venture to assert with emphatic modesty. That it has shamed a few into silence, no one knows better than the Editor. That it has not succeeded in cleansing every stall in the Augean

stable, is the fault directly of our readers, who deplore the state of affairs, and who suffer by it, and who had made no organized effort to educate the public to avoid it.

At last, however, the Toronto Dental Society has made a move in the right direction. The papers read at its meetings by Drs. Pearson and Martin, published in our last issue, offer practical and practicable suggestions, and there is no reason now why a united effort of the respectable dentists of the Queen City, and the expenditure for the object of a few dollars, should not succeed. One of our correspondents, in the present issue, suggests a united scheme of ethical advertising, which, added to those made at the Toronto Society, would not only be a measure of justifiable self-defence, but one of individual and collective benefit, as well as one that would get the public to reflect. The quack succeeds in getting business because he knows that a large proportion of the public does not stop to think. The departmental stores know this too. The patent medicine men know it too. All humbug flourishes because its patrons do not think. A quack advertisement, especially to country readers, is as infallible as the ten commandments. Indeed it is frequently much less questioned in practice as well as in belief. The public must be taught to think, and if they are not taught in the right direction, they will be in the wrong. Truth, too, must not only be told once ; it must be iterated, and reiterated.

PATRONIZE OUR ADVERTISERS.

We repeat this request in the interest of our readers as well as our own. We mentioned this before with reference to the dealers of dental goods, and we cannot emphasize it sufficiently. It costs our subscribers no more to deal with these houses than with those who hold aloof. They are entitled to the patronage the dentists in the Dominion have to bestow.

We wish to make special mention of the Canadian Pacific Railway in this connection. It has been generous enough to advertise in our JOURNAL, and we think it only fair to suggest that the dentists should make preference of this splendid line whenever possible. "Do you know Canada?" What a suggestive idea for the holidays. "It is shameful for a man to be ignorant of his own country," was said by an ancient philosopher. How much truer in modern times. From Halifax to Vancouver! What scores of fascinating trips! The Canadian Pacific Railway is the backbone of the Dominion. In this Jubilee year, Canadians ought to know their own great country better than ever.

EDITORIAL NOTES.

THE first attempt at departmental dentistry in Toronto has gone up in smoke.

WHEN Dr. N. Pearson, dentist, whose office is in the building joining the ruins of the John Eaton store, came down to business the morning of the fire, water was dripping from the ceiling, and the carpets were soaking wet. The doctor, who is a cool headed man, thought there was a change in the weather, so he put on his rubbers, elevated his umbrella, and went on manufacturing teeth in his serene, unruffled way, as though nothing had happened.—*Toronto paper.*

IN reply to many inquiries about Dr. Haskell's Post-Graduate School of Prosthetic Dentistry, we wish to direct attention to the change of location to 1209 Stewart Buildings, Chicago. It is the oldest and most successful post-graduate dental school in existence, and has been of invaluable service to many of our progressive dentists in Canada, as well as of the United States. We trust Brother Jonathan will not pass an alien law to prevent the wide-awake Canuck from attending it.

THE Royal College of Dental Surgeons of Ontario has secured the most complete library of journals and text-books in Canada, which are being classified and placed on the shelves. The list comprises some very rare works. It is intended to proceed with the collection of models and pathological specimens, to which many practitioners could easily add, instead of having them lying idle over the Province. They would not only be available in the instruction of students, but would very much increase the interest of the annual meetings of the Association. A hint to possessors ought to be sufficient.

“DENTAL PIRATES.”—We were sitting in an opera house not a thousand miles from Toronto, during the production of Gilbert and Sullivan's opera of the “Pirates of Penzance.” In front of us sat several ladies. During the intermission of the acts, they amused themselves by reading the advertisements of the programme, among which was that of one of those degrading dental cards which the quacks and quack imitators know so well how to use. One of the ladies remarked: “I suppose these are what you may call ‘pirate dentists.’” “Oh! you can easily tell that. No respectable dentist would descend so low.” That sort of advertising has its day, as in Montreal it generally ends in a sheriff's sale.

DR. W. C. BARRETT is a man after our own heart in many ways. He hits hard, and can take hard hits, and if he happens to hit below the belt he takes the consequences. And when he goes for an out and out impostor, he generally uses him up in one round. Recently he has been disciplining one T. B. Engleheart, A.M., M.D., Ph.D., *Præcis*, who assumes to be at the head of a college of Arts and Science in Buffalo, able to confer the degree of Doctor of Dental Surgery, and whose circulars have been freely sent to Canada. Dr. Barrett says: "T. B. Engleheart is a swindler. There is no one in Buffalo entitled to grant the degree of D.D.S. save the Dental Department of the University of Buffalo, and its diploma cannot be obtained except by those who have primarily graduated from an acknowledged High School, and afterwards spent three full years in the study of dentistry in an acknowledged dental college, the last being here; and shall have passed all the necessary examinations and been approved by the Council of the University. T. B. Engleheart is an old offender. He is uneducated and uninformed. His pretended degrees are self-conferred, and he has no more standing in this city than another swindler." We had several inquiries a year ago about this rascal. We are glad to assist our contemporary in exhibiting the knave's true character.

Post-Card Dots.

14. What is Nasmyth's membrane? Please decide a controversy. (R. McG.)

One cannot pretend to "decide" anything. The orthodoxy of to-day was the heterodoxy of yesterday. But Prof. Paul, of Liverpool, recently advanced the idea that Nasmyth's membrane is not, as has been taught, a thin layer of cementum, but that it is merely a remnant of the enamel organ. Mr. Charles Tomes accepts Prof. Paul's views.

15. How can I prevent black rubber from becoming porous? (R. L.)

A correspondent in the *Journal* of the British Dental Association states that porosity is caused by vulcanizing at too high a temperature, and advises vulcanizing at 300° for one and three-quarter hours. If a thermometer is used do not let it exceed this heat; if a pressure gauge, seventy-five pounds pressure for the same time. "The thermometer gives the temperature of the lid, and not the temperature of the inside of the vulcanizer."

16. Where does the British Dental Association meet this year? (B.)

In the Medical School Buildings of Trinity College, Dublin, August 17th, 18th and 19th.

17. Is the anæsthesia of eucaine slower than that of cocaine? (L.)

Yes. Five to ten minutes must elapse before operating, but it is fully equal to cocaine; its duration is from ten to twenty minutes. It seems to have a more exciting effect than cocaine in increasing the salivary secretion.

18. Who is the oldest living French-Canadian practitioner? (J. B.)

Dr. C. F. F. Trestler, whose genial countenance was portrayed in No. 4 of Vol. 1. Dr. Trestler is the type of an ethical French-Canadian practitioner, and enjoys the respect and affection of his confères.

19. When was the portrait of Dr. W. D. Miller published in the DOMINION JOURNAL?

March, 1891, No. 2, vol. 3, with a charming description of his life and labors by his friend Dr. W. C. Barrett.

20. Can you recommend a work on hypnotism which will enable me to follow further the writings of Dr. Fillebrown on its nature and uses? (A. B.)

"Suggestive Therapeutics," by Dr. Bernheim, published by Putnam's, New York. If we are not mistaken, Dr. Fillebrown recommends this work.

21. Has Dr. L. P. Haskell ever published a work on prosthetic dentistry? (T. B.)

Yes. The Student's Manual for the Laboratory, costing \$1.50

22. Is there any way to prevent the clouding of mouth mirrors? (J. S.)

A timely reply is found in a recent issue of *Ash's Quarterly Circular* by Mr. Geo. Wallis, L.D.S. To prevent clouding simply smear a thin layer of ordinary soap, soft but not moist, over the surface of the mirror, and then polish it with a dry cloth. The effect is that however much the mirror may be breathed upon its reflecting surface remains clear and bright. This can be used in laryngology with great effect, rendering it quite unnecessary to warm the instrument before using.

Obituary.



DR. JOHN GENTLES.

It is with a sense of personal bereavement, as well as a realization of professional loss, that I chronicle the death, by drowning, on the Queen's Birthday, of Dr. John Gentles, of Montreal, in his thirty-second year. Death, which must come to us all, never wakens so much sympathy for survivors as when it is met in unselfish sacrifice for the lives of others; and it was this, as well as his own sterling goodness of heart and geniality, which made the loss of Dr. Gentles more like that of a public citizen than of a quiet dentist. In company with several friends and an Indian guide he was enjoying a few days' fishing on the Maskinonge River. He and the guide entered a small boat for the purpose of running the Cedar Rapids. The swell swamped the canoe, but both of the

occupants succeeded in holding on. The water was icy cold and the Indian, first assuring himself that Dr. Gentles was all right, struck for shore. The boat had gone down the stream, and while Dr. Gentles was swimming ashore, Fred Epps, the local hunter, who was also one of the party, and who was on the opposite bank of the river, waded in, caught him under his arms and started to help him on shore. Dr. Gentles, however, with his usual unselfishness, told him to go back and look for the Indian, whom he thought was still in the water. Epps was swimming on his back against the current, when he threw up his arms and disappeared. The Indian and Mr. Dodds attempted to save him without avail. In the meantime it is supposed that Dr. Gentles got a cramp and was unable to reach the shore before he sank. The bodies were not found until the 26th.

"Jack," as we all called him, came to me as an office boy when about twelve years old, with no idea of studying the profession. He remained about six years in that position, during which time he made himself so familiar with the routine of the laboratory, and showed such sterling fidelity, that I proposed to indenture him. When this was done, his industry was remarkable. It was before there was any dental college in the Province, but he applied himself assiduously to a course of reading in the principles of dentistry, besides attending a partial course in McGill. Having been thoroughly cured of the impediment of stammering, he rapidly gained self-confidence, and when he entered into practice for himself soon secured a good business. His popularity was well-deserved, for his honorable career was an object-lesson to every student and young man in the profession.

The funeral on the 28th was one of the largest private funerals Montreal has ever witnessed. The Montreal Dental Club, the Holly Snow Shoe Club, the Fish and Game Club, the Thistle Curling Club, the Masons, the Royal Arcanum, etc., were represented, and the room in which the body lay was simply piled up with lovely flowers in appropriate designs, to which Dr. and Mrs. G. L. Curtis, of New York, the Montreal Dental Club, and individual dentists contributed. The flag of the Dental College was flown at half mast. The funeral service was a tribute of remarkable respect.

W. G. B.