

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments: /
Commentaires supplémentaires: Various pagings.

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
					✓						

Vol. III.

NOVEMBER, 1870.

No. I.

THE CANADA
Journal of Dental Science.

ISSUED MONTHLY.

EDITED BY

W. GEO. BEERS, L.D.S., *Montreal.*

C. S. CHITTENDEN, L.D.S., *Hamilton.*

CORRESPONDING EDITORS,

W. H. WAITE, D.D.S.,
LIVERPOOL, ENG.

} AND }

G. C. DABOLL, M.D.S.,
BUFFALO, N.Y.



PUBLISHED IN
ONTARIO AND QUEBEC.

Price \$2 a year, invariably in advance.

JOHN LOVELL, PRINTER, MONTREAL.

CONTENTS FOR NOVEMBER 1870.

ORIGINAL COMMUNICATIONS.

	PAGE.
Rare Case of Abnormal Development. By E. Lefalvre, D.D.S.	1
Carbolic Acid. By G. V. N. Relyea, L.D.S.	2
Another Case of Artificial Teeth in the Stomach. By A. C. Cogswell, D.D.S.	3
Dental Hygiene. By H. H. Nelles, D.D.S.	6
Periodontitis. By W. H. Waite, D.D.S.	10
Drying Cavities. By J. H. Webster, L.D.S.	13
Success in Business. By an Old Dentist.	13

PROCEEDINGS OF DENTAL SOCIETIES.

Royal College of Dental Surgeons of Ontario.	15
Board of Examiners of Quebec.	16
Quebec Dental Society.	16

EPITOME OF THE PROCEEDINGS OF FOREIGN SOCIETIES.

17

SELECTED ARTICLES.

Hereditary Transmission of Dental Irregularities. By Prof. J. H. McQuillen.	22
Proper Steam Room in Vulcanizers.	24
How to true a Corundum Wheel.	25
Blackened Forceps.	25
Destroying the Pulp without Pain.	25
Os Artificiel in a New Field.	26

BIBLIOGRAPHICAL NOTICES.

26

EDITORIAL.

Prospectus of Volume Third.	27
Words in Season.	28
Read, Compare, Digest.	29
This Number.	30
The Pyroxyline Base.	31
Piling on the Agony.	31
Our Advertisers.	31
Thanks to Prof. McQuillen.	32

MISCELLANEOUS.

Lo! the Poor Dentist.	32
Hydrate of Chloral.	32
A Proverb.	32
Who First Scarified Gums.	32
Dentists in China.	32
Old Advertisement Curiosity.	32
Administering Consolation.	32
Holly Strips.	32

INDEX TO ADVERTISEMENTS.

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Guillois' Cement, &c. 2. New Amalgams. 3. Johnson's Gold Foil, &c. 4. Johnson's Gold Foil. 5. S. S. White's Depot. 3. Lawrence's Amalgam. 7. Oxy-Chloride of Zinc. 8. Hubbard's Depot. 9. Chandler's Depot. 10. Kelsey's New Vulcanizing Apparatus. 11. Philadelphia Dental College. 2. New York College of Dentistry 13. Dental School of Harvard University, | <ol style="list-style-type: none"> 14. Pennsylvania College of Dental Surgery. Ney's Gold Foil. Thomas on Nitrous Oxide. 15. Lyon's Footh Table ts. 16. Johnson and Lund's Teeth, &c. 17. Weston's Dental Metal. 18. Canada Medical Journal. 19. Corfield's Teeth, &c. 20. Rubencame and Barker's Depot. 21. Eureka Gold Filling. Doherty's Rubber. Dentist's Microscopes. 22. Dental Assistant Wanted. 23. Abbey's Gold Foil. 24. S. S. White's Teeth, &c. |
|---|--|

THIRD VOLUME.

THE CANADA

JOURNAL OF DENTAL SCIENCE.

MONTHLY—\$2 A YEAR, STRICTLY IN ADVANCE: AN INDEPENDENT PERIODICAL.

Illustrations are given as often as required.

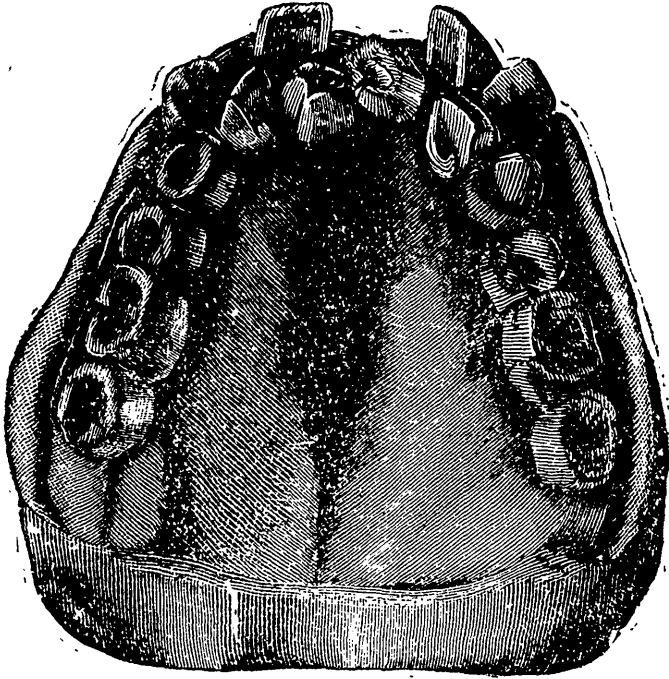
Contributions are respectfully solicited. Contributors will oblige by writing on only one side of the paper.

Advertisers will find this Journal the very best medium for bringing their wares before the Canadian profession. Rates of advertising reasonable.

Remittances of Money, articles for publications, advertisements and books for review should be addressed to the Editor at Montreal. Money letters should invariably be registered.

W. GEO. BEERS, L.D.S.,
40 Beaver Hall Terrace, Montreal.

R. G. O. Fiset, of New York, is authorised to act as Agent for Subscriptions and Advertisement in New York and Philadelphia.



ABNORMAL DEVELOPMENT OF THE SUPERNUMERARY BICUSPIDS.

(See Page 1.)

THE CANADA
Journal of Dental Science.

Vol. III.] November, 1870. [No. 1.

ORIGINAL COMMUNICATIONS.

RARE AND INTERESTING CASE OF ABNORMAL DEVELOPMENT.

BY ED. LEFAIVRE, D D.S., ST. JOHNS.

The following case of deformity and irregularity having interested the members of our association at our last meeting, and yourself particularly, I will endeavour to make a few remarks on it, with the hope that it may prove of some interest to the profession at large.

It is obvious to every one, that the same variety which is found in individual normal features, form, talents and capacities, is also present in deformities; it being impossible to find two men with perfect resemblances, or similar gifts of intellect. In the same measure we cannot find deformities exactly the same.

This has not prevented scientific men from proving that certain rules prevail in deformed as well as in regularly arranged organs; — especially in the teeth. Thus it seems to be generally believed that supernumerary teeth grow in certain places; that in others they are supplemented; that irregularities assume this or that general character. The case I submit does not depart from these observations of anatomists, but offers some peculiarities which I have not noticed in any book, or in practice. In most cases the presence of supernumerary teeth in the centre of the arch, causes the absence of one or more permanent teeth; it is of rare occurrence when they come in pairs, and their form is very irregular. As a rule they are conical, or appear like badly developed bicuspids.

In the accompanying drawing, which is made from the plaster cast, in the best position to give a full view of the case, it may be seen that the proper number of teeth are present, but very much disturbed; the *dens sapientæ* not having yet erupted. The supernumeraries occupy the

centre, on each side of the median line, and look like well-developed bicuspids, though not exactly perfect in shape.

I extracted the one on the right side, which most annoyed the patient. It was longer than an ordinary bicuspids, and slightly tortuous; and evidently formed to last. By their position, and the manner in which they have disarranged the other teeth, I judge that their growth has been antecedent to the permanent dentition; the centrals have probably been retained some time, while the laterals, finding no resistance, have come through almost regularly. The canines found their exit though the gum with great difficulty, and are entirely out of the proper arch.

At the time I took the impression, the patient was between sixteen and seventeen years of age. The rest of his dentition was regular and complete.

The reflection which is made now is, "How did the supernumeraries get into their present position, and being antecedent to the permanent how are they as well organized?" This is more than I can answer.

I can only say that my young patient looked healthy and strong, and that his features were not so much impaired as one might reasonably expect. Looking at the cluster of teeth, however, I thought of some constellation, and of the Thousand Isles on the St. Lawrence!

After extracting one of the teeth, I offered to correct the irregularity for a moderate charge. I being a beginner, and my patient being poor, which is almost the same, I had to decide that I could not do it just for the mere sake of his good looks.

CARBOLIC ACID.

BY G. V. N. RELYEA, L.D.S., BELLEVILLE.

The remarkable healing and antiseptic powers of this invaluable remedy should be more generally understood by the members of the dental profession. Those who have used it, and observed with what certainty and celerity it will arrest the process of suppuration or promote the growth of healthy granulations, and hasten the healing process will not consent to be without it. Combined with the oil of cloves, it is, I find, an excellent article for obtunding sensitive dentine; removing foetid odours; arresting obstinate hæmorrhage; treating gum-boils and abscesses.

Some few months since a Mr. Abrams, an assurance agent of our town, came to my office with a chronic sloughing ulcer on the left side of his tongue. He had consulted most of the M.D.'s of this, and our neigh.

bouring towns, all of whom in their turn had either treated, or suggested remedies. Two M.D.'s recommended an operation, and one was anxious to cut a V out of it.

A new comer in town, though an old and good practitioner, spent three hours one evening reading up on Mr. A.'s case, and finally concluded that if he would come to my office, and get all the sharp corners removed from his under teeth, in order to insure against any further irritation from that source, he thought he could cure him. This accounts for his falling into my hands. On examination I found a most perfect set of teeth, and after a thorough diagnosis of the case, came to the conclusion that it was local in its character, and that if I could arrest the discharge I was sure of effecting a radical cure.

Professional etiquette required, however, that the last-named physician should be consulted before he could become a patient of mine; he, however, readily consented, evidently delighted to get rid of a difficult and questionable case. The patient having suffered for full eighteen months, and all remedies having hitherto failed, and having furthermore been assured by the knowing ones that unless he soon obtained relief it would "turn into a cancer," he naturally became very nervous and anxious.

Treatment.—I directed my patient (who is an intelligent man) to dry the parts with a rag or pledget of cotton, and then apply the carbolic acid three or four times, and to repeat this four or five times a day. After three days' treatment the discharge had, in a measure, ceased, and at the expiration of three more there was no suppuration, the wound appearing of a purple hue, and on close examination healthy granulations were appearing. At this stage treatment was discontinued, and in two weeks my patient assured me that he could smoke his pipe, drink a cup of tea, (two luxuries of which he had been deprived) and to-day the surface of the tongue is as perfect as if it had never been effected.

ANOTHER CASE OF ARTIFICIAL TEETH IN THE STOMACH.

BY A. C. COGSWELL, D.D.S., HALIFAX, NOVA SCOTIA.

The April number of the *Dental Cosmos* contained several articles respecting artificial dentures in the stomach, taken from the London *Lancet* and the Boston *Medical and Surgical Journal*. One case where the plate had passed through the body, and another where the denture had been removed by means of instruments. These cases, no doubt, are of rare occurrence, but it is well when such come under the observation or treatment of those of our profession, to give

them publicity, as well as the particulars connected with each, the means resorted to and the result.

I have to add another to the list of accidents in the above direction. The following was caused entirely by the patient wearing the denture when it no longer fitted the mouth, and had become quite loose from the loss of several natural teeth.

This may be a warning to many who wear parts of sets, as well as remind those of our profession, of the necessity of impressing upon their patients the *danger* of retaining such when they become so loose as to fall in almost every act of speaking.

As we occasionally meet such persons, the *desire* on our part is to give them good advice, but unless they call upon us professionally, our *gratuitous* advice or suggestions to have the defect remedied, may be taken as a desire on our part to solicit the patronage of said parties, and hence little thanks for unasked for advice and premature caution. The looseness of dentures may not always be from loss of teeth to which the plate has been attached, but frequently temporary sets are worn when the alveolar ridge and gums have shrunk and absorbed, so as to cause a general looseness of the plates, as well as imperfect fits at the time they are inserted. Parts of sets may be *carried* in the mouth of the patient during the day with less risk than at night, but when in a recumbent position, and folded in the arms of *Morpheus*, or *some other arms*, the risk is too great, and the danger of swallowing them quite obvious. The following accident occurred some three months since: The lady had the denture made in London by a Mr. Webb. The rocts, which several of the artificial teeth covered at the time the plate was inserted, had worked down beyond the margin of the gum, preventing the plate and artificial teeth from fitting accurately, causing the plate to become quite loose, and for some months previous to swallowing it, it was a constant source of annoyance by falling almost in every act of speaking, and causing the patient to keep it in its place by the use of the tongue, and a strong effort to draw it upwards by exclusion of the air, but which no sooner was released than it again became loose. This partial denture contained originally five teeth, consisting of two laterals, cuspid and two bicuspid on vulcanite plate. It was held *in situ* mosily by the laterals fitting accurately between the centrals and cuspid teeth. The width of the plate from right to left side, was about two inches, distant from the incisors across, three quarters of an inch. No clasps. At the time the plate was swallowed, several of the teeth had been broken off close, leaving the four platina pins projecting from the rubber. From the time it was first swallowed, it occupied some five hours in passing into the stomach, pro-

ducing intense, sharp, cutting pain, especially as it passed through the pharynx, and also the œsophagus, until carried beyond the diaphragm into the cardiac portion of the stomach. An instrument was introduced, and an effort made to remove it by means of ligatures attached to a hollow tube, but failed in its purpose; in fact it was a question if her physician was certain whether he felt the plate or not, in introducing into the stomach the instrument for its removal. The patient was sent to the hospital, where she remained several weeks. During that time she suffered considerable pain and sore throat, could not lie on either side, much swelling preventing her securing her clothes around her, pain most severe in the left side of the hypochondriac region, lived mostly upon fluids, and very irregular in her bowels. The above symptoms of inflammation and soreness gradually passed away, and in a few weeks she was enabled to return to her usual occupation as a governess in a family. During an interview with her a few days since, she gave me the above particulars, and enabled me also to judge of the size of the plate she had swallowed, and also ascertain the number of teeth, &c., on it. She seems of the opinion that the denture has *dissolved* in the stomach, and is *convinced* it has not passed the bowels. Being of a feeble anæmic constitution, she remarked that since the accident, for the past month at least, she *never enjoyed better health*, appetite good, digestion improved, regular in her bowels, and in good spirits. Thinking it impossible for the gastric juices of the stomach to act upon the vulcanite, I felt desirous to know what mineral acids would dissolve vulcanite rubber, hence I experimented with the various muriatic, sulphuric and nitric acids, found the two former had no effect upon the piece placed in it, but by applying nitric acid and chloroform, after twenty-four hours the piece had become quite like a sponge in softness, could easily express the coloring material from it, and in drying, it could be rubbed up like powder between the fingers. Now comes a nice question for physiologists, namely: Will the gastric juices of the stomach act upon vulcanite rubber in the same way as upon bone or horn, or will the result be in time, the same as may be produced by acids when experimented upon out of the stomach? Muriatic acid, hydro chloric, &c., being said to be found in the stomach, can they act upon vulcanite as above suggested? May not the fact of the patient being better in general health be owing to the presence of this foreign body in the stomach? The veddahs or wild hunters of Ceylon, as related by Dr. Carpenter, mingle pounded fibres of soft and decayed wood with the honey in which they feed, when meat is not to be had. They know not the reason for so doing, but remarked that they knew that the belly must be filled.

Although Dr. Beaumont's experiments proved, that the presence in the stomach of any substance which is difficult of digestion interferes with the solution of food that would otherwise be reduced, still may not this foreign body act upon the membrane, and cause the peristaltic action to be increased, hence facilitate, at least for a time, digestion, as appears to be in the case to which we alluded.

Foreign bodies have remained a length of time in the stomach, and on *post-mortem* examination have been found, as reported of a sailor in the May number of the *Cosmos*, and also one some months since in this city. There was found in the stomach of a lunatic, a jack-knife, several pieces of coal and a portion of oakum. How long they had been there, could not be told. The oakum seemed to be the cause of the death. Shall report if anything serious occurs to the lady referred to. Fearing death might ensue, she felt desirous to return to her people in England, but her physician thought it not wise, for fear during sea-sickness the plate might be thrown from the stomach, and lodge in some part before it could pass up and out of the mouth; hence she still remains, hoping all will end well.

DENTAL HYGIENE.

BY H. H. NELLES, D.D.S., LONDON, ONT.

Read before the Ontario Dental Society.

MR. PRESIDENT AND GENTLEMEN.—In attempting to comply with your request to read an essay at our present Session, I would not, for a moment, assume the position of teacher to the members of this association; and have made no effort to prepare either an elaborate or learned thesis, but have simply collected a few facts that have become impressed upon my mind during a period of ten years continuance, more for the purpose of causing discussion than for the sake of presenting anything very new pertaining to our science.

The subject of *Dental Hygiene*, upon which I purpose offering a few suggestions, is, in a physiological point of view, not only of peculiar interest, but in its relation to the benefit of the rising generation, it must be considered of paramount importance.

The extreme early age in life in which many of the diseases incident to the teeth make their appearance, and the almost universal prevalence of these diseases amongst the inhabitants of this continent, is a fact of sufficient importance to excite the interest, not only of every one who makes any pretensions to a knowledge of the healing art, but also of every parent who assumes the responsibility of rearing a family.

And whilst this subject is one of general interest, and its application must rest, to a great extent, with the people themselves, yet, the duty of influencing the public mind to a higher appreciation of the principles of dental hygiene, devolves upon the members of our profession.

And every dentist who entertains just conceptions of the responsibility of his calling, and who recognises his first duty as being towards his patients, will ever be influenced with the necessity of exercising his highest abilities, in response to the loud calls upon our science, to arrest an evil of such magnitude as that of the destruction of the teeth.

The rapid advancement of our science during the last quarter of a century, within which period it has attained to the position of a profession, has enabled its advocates to remove, to some extent, the erroneous impressions previously entertained by many, that the teeth are mere *appendages* of the body, to be sacrificed at the caprice of the patient. But there is yet much to accomplish, on the part of the members of the dental profession, ere the public will accord a proper recognition of the benefits it confers, or that we can ever hope to receive for our services a just recompense of reward.

Now, in the application of hygienic principles to the teeth, it is necessary to bear in mind that in their physiological relations, as well as in their physical constitution, they are subject to the same laws that regulate the various other departments of the physical organism. Thus they originate like all other organized animal structures, from the simple cell germ, and advance throughout the successive periods of their formation, in accordance with the invariable laws of natural life; receiving through the blood the elements of their construction, and depending upon the influence of the nervous system for their power of growth. And by these intimate relations to the vital forces of life, they are in the earlier stages of their development especially just as susceptible to the influences that disturb these forces, as many of the other solid structures of the body.

And any interference during growth of the supply of the essential constituents of their organization, either by severe physical prostration, during which the nutritive process is interrupted, or by the non-nutritious character of the food, must necessarily exert a prejudicial influence either upon the density or uniformity of their structures.

That the density of these organs is frequently impaired, in early childhood, needs no further proof than the readiness with which they yield to the destructive force of agents with which they are brought in contact. And we have frequent and unmistakable evidence of the influence of diseases of the system upon their uniformity, in the peculiar

pitted arrangement of the enamel of teeth, that have suffered during their formative process, by severe attacks of scarlet fever or measles, or some other of the eruptive diseases incident to children. And though these defects of the enamel are sometimes only superficial, and do not always induce decay, still they always mar the beauty of their appearance throughout subsequent life.

And the effects of constitutional diseases upon the teeth are not confined to childhood. For it is no uncommon occurrence for persons more advanced in life to call upon the dentist upon recovering from a severe attack of some prostrating disease of long continuance, and complain of the Doctor's *medicine* having destroyed their teeth; whereas in nine cases out of ten, the breaking down of the constitution of the teeth upon these occasions, is either the result of the destructive force of the disease that has wasted the system, or of its effects in changing the glandular secretions of the mouth and stomach, and thereby subjecting the teeth to their acid action. Under these circumstances, an antacid wash may be of great benefit in neutralizing the acid and lessening its effects. Now, if we can so distinctly trace special cases of disease and decay of these organs to constitutional causes, it is not an unreasonable supposition that habits of living and articles of diet that have a tendency to produce physical debility, should always exert a corresponding influence upon the teeth. And when we consider that there are but few parents in this country who, in rearing their families, even seem to recognise or regard the intimate relation that subsists between the general health of children, and that of their teeth, we are forced to the conclusion that it is to this ignorance and disregard more than anything else, that we are to attribute the natural, or rather unnatural, predisposition of the teeth of the people of this country to decay, to so much greater an extent than that of European or other foreign countries. It is a fact worthy of our consideration that the prevalence of carious teeth, in any country, is generally in proportion to the departures from the rules of health in diet and habits of living; thus, there are the greatest demands upon our art in large cities, where the dissipations are carried to the greatest extent, and where the irregularities in living too frequently have a direct tendency to accelerate the physical degeneracy of our race, whilst among people who retain their primitive habits of life, and whose food is plain and nutritious, the teeth very rarely decay. If we take, for instance, the middle classes of Scotland and Ireland, who, possess, perhaps the soundest teeth of any civilized nations in the world, we find that they are noted for their simplicity of living; and we never heard anything of their physical degeneracy, until they immigrated to this country, and adopted the evils of American life.

Now there is probably nowhere, as among the Americans, such a universal practice of pampering the appetite, with a variety of indigestible pastries and confectioneries, with preserved fruits and mixed pickles, that the human system is utterly incapable of assimilating or converting into the elements of the body. And, as a result of the constant indulgence in unnatural preparations of food, the Americans are proverbially a race of dyspeptics; and dyspeptics seldom have good teeth.

And then, again, the Americans eat faster, and too frequently without properly masticating their food, and live faster, and are more regardless of hygienic laws, than any other civilized nation in the world.

Again, the unlimited indulgence of acid fruits at all hours of the day, that too frequently obtains amongst the children of this country, is unquestionably a very *fruitful* source of decay. Raw fruits should always be eaten after meals, and then only in moderation, and the teeth washed carefully immediately after. There cannot be too much attention given to the toilet of the teeth, at any time. The free use of the brush and tepid water after eating is of incalculable benefit; as the fermentation of particles of food around and between the teeth is a constant source of decay, and always precludes the possibility of our depending, with any degree of certainty, upon any of the operations or appliances of our art.

And then, if it be true that cleanliness is allied to godliness, we may well be disposed to question the orthodoxy of the christian principles of the persons whose breath has become so foul from the deposit of calcareous matter around the teeth, as to render their presence an offense to all good society.

It is sometimes urged in extenuation of these habits of *indolence*, that many people retain their teeth in perfect soundness to the age of three-score years, who have never known the benefits of a tooth brush, or enjoyed the *luxury* of a dental chair. But, it will generally be found, that in these cases the preservation of the teeth is due to their adamantine structure, which has been inherited in common with a robust physical organization, and a simplicity and regularity of living wholly unknown to the youth of the present age.

Another great cause of constitutional defects of the teeth is the close confinement in heated ill-ventilated apartments, during six months of the year, to which too many of the children of this country are subjected; and parents who have the welfare of their children to heart, should spare no efforts to afford them an abundance of exercise in the open air.

With these facts before us we cannot fail to see the necessity of a radical change, in many respects, in the treatment of children, in order to ensure the permanence of their teeth.

PERIODONTITIS.

BY W. H. WAITE, D.D.S., LIVERPOOL, ENGLAND.

The disorder known by the above name consists in an inflamed condition of the investing membrane of the roots of teeth. It may occur on one root only, and in one spot, very circumscribed, or be found extensively spread over nearly the whole surface of the roots. Accompanying this inflammatory state, there is frequently a thickening of the peridental membrane, causing more or less protrusion of the tooth from its socket. The symptoms are tolerably defined, and the diagnosis easy. If the opposing tooth is *in situ*, pain is experienced in striking the jaws together; while at the same time there is present a desire to grind the teeth, for by so doing a kind of temporary relief is afforded. A gnawing, boring pain, considerably aggravated when the head is laid down, and warm at night—not quite so acute as true toothache (except in the worst stages) but quite as distressing—having a marked effect on the mental energies, some degree of concomitant inflammation about the gums in the neighbourhood, and soreness to the touch—these are the chief features arising in connexion with this disease.

Sometimes a patient will be unable to locate the sensations with sufficient precision to indicate the offender, and in such cases, if the teeth are gently tapped, one at a time, with the handle of an excavator, the defaulter will not fail to respond. The causes of this affection enumerated in some of our standard works are various, and, without doubt, periodontitis may proceed from numerous predisposing and exciting causes; still, probably, it would not be unsafe to say that fully 95 *per cent.* of these cases are attributable either to the presence of a dead pulp, or to the manipulation and treatment employed for the devitalization and extirpation of the pulp. The worst forms of periodontitis are to be found where, the cavity of decay having extended very near to the pulp cavity without actually exposing that organ, a large gold or amalgam filling has been inserted, and by reason of the conduction of thermal sensations through the plug, the pulp has sooner or later lost its vitality. Now, such death of the pulp is speedily followed by the liberation of a foul and irritating gas, which, being confined by the filling, works its way outwards through the apex of the nerve canals, and coming into contact with the periosteum, acts as an irritant thereon, inducing determination, congestion, and at length inflammation. Further on the periosteum becomes detached from the root, suppuration commences, and we have as the issue *Alveolar Abscess*.

But seeing that these large fillings of metal alone are apt to produce

such unpleasant consequences, we are led to consider the advisability of interposing some non-conductor between the metal and the base of the cavity. Thus, if a gold filling be intended, we may place a layer of oxy-chloride of zinc, or Hill's Stopping, over the floor, or if an amalgam filling is to be introduced the oxy-chloride answers our purpose, and in some such way it seems probable that many large cavities among the ill-fated first molars may not only be filled but filled with a fair prospect of permanent success. Beyond a doubt, caution and the studious adoption of every preventive measure, are not thrown away in any case of deep-seated caries, for whatever may be the merits of the treatments noted hereafter, it is certainly very annoying to have a patient return shortly after the insertion of a large filling, complaining that "this tooth is so tender, I can't bear to close my mouth."

Remedies as varied as the causes of periodontitis have been suggested from time to time, most of them valuable in some circumstances, and valueless in others. It would seem as though a special bond of sympathy were called into existence between the local affection and the general health of the patient. Cold, disorder of the stomach or bowels, indigestion, rheumatic or gouty tendencies, any and every derangement of the system, appears to act, and be reacted upon by this disease; and oftentimes, baffled by the complications, and besought by the patient, we are led to give it up and remove the offending tooth, rather than encounter the apparently endless annoyance.

Happily the extreme cases are not a large majority. If "dead pulp" can be clearly diagnosed, (and the history of the case, taken together with the opacity of the tooth's appearance, will generally afford decisive evidence) and if the case presents early, say, within two or three days of the commencement of uneasy sensation, there is no quicker or surer method of procuring relief than to remove the filling, open freely into the pulp cavity, and afford a vent for the gas pent up therein, thoroughly cleansing the canals from every particle of dead tissue, and treating with dressing of camphorated spirit, followed by dilute carbolic acid, &c., till all offensive odour has disappeared, and finally, when the condition of health is fully established, filling the canals, and refilling the outer cavity; or, if for any reason it be considered undesirable to remove the filling (and this may often be the case) an entrance can be made from the neck of the tooth, just at the margin of the gum, into the pulp cavity, by drilling right in through the bone, with a sharp spear-pointed drill. This is known technically as "odontropy." Drills may be easily made of broken excavators, suitable for this purpose, and, if the tactile sense of the operator is sufficiently acute, he will observe that just as the instrument

punctures the pulp-chamber, it will be felt to stick, and by this he will know that the object is accomplished. Frequently, moreover, on enquiry it will be found that the patient has tasted the peculiarly unpleasant gas thus let out into the mouth. As a rule the symptoms rapidly subside after the gas has escaped. Complete restoration may be facilitated by placing a guard of gutta-percha on the teeth of the opposite side of the head, to prevent closure of the jaws upon the affected tooth, and so shield it from irritation of that sort; also, by carefully drying the gums, and then painting the part with the officinal Tincture of Iodine, or the mixture given below.* When periodontitis supervenes on devitalization and thorough extirpation, palliative treatment is indicated, free lancing of the gums, copious bleeding, after which cold applications, without and within the mouth, liberal use of Iodine, or the Iodine and Aconite, which last is certainly an excellent remedy. Again, it has been suggested that *Mercurius Vivus*, the third decimal trituration, given in small doses two or three times a day is a specific in such case. This is also a good medicine, but scarcely infallible. Indeed it is more than doubtful if anything is absolutely certain. The wise practitioner, however, is ever ready to employ any means which the peculiarities of the case, or the experience of his fellows, may suggest; and in this, as in all other affections, will not be bound by prejudice simply to follow a beaten track, but be ready on occasion to exercise his ingenuity to discover the best treatment for each case as it presents, always bearing in mind the intimate relation that exists between this disorder and nearly every phase of systemic trouble.

Perhaps one of the greatest evils associated with this form of dental disease is the fact that patients do not generally recognize the true cause of their trouble. Neuralgia, or *tic*, as they call it in some places, seems to be a sort of universal scapegoat, on whose back are laid all kinds of dental difficulties, and to get rid of which the patients will swallow any amount of physic before they wake up to realize wherein the mischief truly consists, and then too often the disease has passed into the suppurative stage. The last hint as to the treatment of periodontitis, therefore, is never to fail in warning a patient of the possible result in every case, where there appears any reason to suppose that sooner or later the disorder may appear.

* Dr. Frank Abbott of New York, announced in the "Dental Cosmos" of October, 1868, that he had obtained very satisfactory results from the use of Officinal Tincture of Iodine, Tincture of Aconite root, equal parts, painted on the gum around the affected tooth once in twenty-four hours, till the inflammation subsided.

DRYING CAVITIES.

BY J. H. WEBSTER, L.D.S., MONTREAL.

I have a simple way of ensuring the removal of every particle of moisture from a cavity, previous to introducing the filling, which may not be original, but which I am sure is not generally known, and which I know to be most effectual. I have used cotton wool, bibulous paper, and punk, but I suspect that none of these remove the moisture entirely.

After drying as well as usual with either of the above, I dip a pledget of cotton in chloroform or alcohol, and wipe out the cavity. If not too much is used, it will evaporate by the time you are ready with your gold; but it is easy to absorb absolutely every particle of moisture by another dry pledget. When the chloroform evaporates, the dentine is as dry as punk.

SUCCESS IN BUSINESS.

BY AN OLD DENTIST.

You ask me to write something for our *Canadian Dental Journal*, and I do not know that I can better please you than by relieving my mind of a point of importance, which, though it be not practical Dentistry, is of intense anxiety to the practical Dentist. I refer to success in business.

I might very elaborately and profitably weave together time-worn axioms and maxims on success, which can be found in any "guide" to young men; but I shall merely draw attention to one point of my theory of success, which I consider the next indispensable requisite to a complete knowledge of our art, and the scientific foundation on which it is based.

I never knew a Dentist succeed, in the true sense of the word, who repelled Dental Associations and Dental Journals, and who calculated as "loss," the expenditure of time and money on these two great and noble adjuncts to progress. I might refer to the history of the dental movement in the United States, and point a moral from the biographies of the men who co-operated with, and those who opposed ignored that movement. I know them well, and I defy any one to point to one single name among the latter who ever rose to be even a fourth or fifth rate Dentist. They voluntarily got into the mire, and they stuck there. Served them right! This, truly, is an important truth, worth remembering, that repugnance to Dental Associations and Journals always marks the quack and imposter.

Nothing gives me greater pleasure to-day than the thought that, though

I was suspicious of the success of the "American Journal of Dental Science" when it was first issued, I repented of my folly with the issue of the second volume, and have never since ceased to take it and pay for it in advance. You cannot keep up with the times without consulting your Dental Journal, and you will find no man succeed who does not keep up with the times.

Nothing denotes more brotherly love and undoubted consistency than to be found zealous in promoting the advancement of our profession in our own country. It is but right and proper that we should have a cosmopolitan spirit in this matter, but much more proper that our zeal should be spent in our own sphere, and any talents we possess, brought to bear for the interests of the profession at home. There are plenty of good and true men abroad to manage their own interests; we want more unity and co-operation for our associations and our Journal at home. The successful man in medicine or law is found concentrating his greatest efforts for progress on the uncultivated sphere in which he lives. He buries all instinctive feelings of dislike, all little prejudices and suspicions, and manfully endures much that is painful to him, for the good of his profession. Why should not the dentist do likewise?

I do not mean to say that success in business is gained by simply supporting our associations, our Journal, &c., but I do mean to say that the knowledge a man obtains by these means contribute greatly to his individual progress, and the better dentist he can make himself the more successful is he likely to be. To be esteemed by one's *confreres* contributes in no small degree to success. To be despised by one's *confreres* is ominous, for no professional man really worthy of esteem is ever really despised. I have all my lifetime aimed to covet the friendship of my brother dentists quite as much as the confidence of my patients.

The great improvements in our science, and the growing importance of Dentistry in Canada, positively compel us to maintain a periodical such as the "C. J. D. S.," unless we wish to be read abroad as the laggards of a noble profession. From old experience in another source, I know something of the difficulties of editing such a periodical, and I doubt if any can properly realize the amount of such work. Personally, I feel deeply grateful for the existence of a Dental Journal in Canada, and I think I can speak for the Profession of Ontario, and assure you now of general sympathy and support.

I find I have rambled somewhat from my theme of success, and have omitted much I intended to say, but these points are inseparable with that kind of success which makes a man feel he has honoured his profes-

sion, and not raised up a name to be pointed at with scorn. The inspiration one receives from making himself useful in every good work, and in supporting our literature, our laws and our license, contributes much more to success in business than one would at first believe. The consciousness that we do our individual work honestly is pleasant to the soul, but I would not take the income of ten years, and be without the pleasures of memory I enjoy, of having put my shoulder to the wheel in the early reform efforts of the profession in the United States and Canada. So mote it be to all who read this humble advice.

PROCEEDINGS OF DENTAL SOCIETIES.

ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO.

MEETING OF THE BOARD OF EXAMINERS.

REPORTED BY J. B. WILMOTT, SECRETARY.

The Regular Semi-Annual Meeting of the Board of Examiners of the Royal College of Dental Surgeons of Ontario was held in Toronto, July 19th.

The meeting held on the 8th June, not being in accordance with the statute, all business transacted was informal.

The first business of the meeting therefore was the election of officers.

The election was by ballot and resulted as follows:

President, H. T. Wood; treasurer, A. C. Stone, M.D.; secretary, J. B. Wilmott; registrar, John Bowes.

Seven new and five old applications for license as five years practitioners were before the Board. Five of these were refused and recommended to come up for examination. Seven were granted license as follows: C. L. Wood, Wellington; John Reid, Watford; D. A. White, Ridgetown; H. L. Harnden, Newmarket; U. J. Chambers, Waterford; and James C. Parsons and Lawrence Vanderpant, of England.

Eight candidates presented themselves for examination, to seven of whom licenses were granted, as follows: William Allingham and Edmund Seagur, Toronto; D. F. Ogden, Mitchel; Geo. Hutchison and Wm. McPhee, Ottawa; B. G. Gilbert, Picton; C. G. Stackhouse, Smith's Falls.

The consideration of the "College Question" occupied a very large portion of the time of the Board. After very full discussion, and ascertaining that there then existed liabilities against the college of considerably over \$100; that there were not funds in the Treasurer's hands to

pay more than 75 per cent. of the ordinary expenses of the present meeting, the following resolutions were adopted:

"Whereas, in the opinion of this Board, the establishment of a Dental School in connection with this Board has not been successful, and the present financial position of the school not being satisfactory; and whereas the financial position of this Board is embarrassed, the new Board assuming office with a very considerable indebtedness;

Therefore resolved:

1st. That the present College rooms be relinquished, and the furniture sold to liquidate the claims against the College, the balance, if any, of the proceeds to be paid into the Treasurer of this Board.

2nd. That all appointments of teachers, and arrangements for conducting the Dental School in connection with this Board be and are hereby cancelled.

3rd. That the School in connection with this Board, be suspended for one year.

4th. That the Secretary notify all licentiates of this Board of the purport of the third resolution.

The following resolution bearing on the same subject was also adopted:

That Messrs. Wood, Willmott and Callender be a Committee, empowered by this Board, to make arrangements for conducting a private Dental College in the city of Toronto, pending the anticipated amendments to the Dental Act. And this Board pledges itself in the event of such a school being established, to accept its tickets from *Candidates* for examination, as evidence of their attendance at a Dental School, according to their previous resolution bearing on this subject."

The Committee succeeded in making such arrangements with Messrs. Adams and Callendar, of Toronto, that they hope shortly to be able to announce the establishment of an efficient Dental College by private enterprise.

J. B. Willmott, Secretary R. C. D. S. drawer 90, P. O., Hamilton.

BOARD OF TRUSTEES AND EXAMINERS FOR PROVINCE OF
QUEBEC.

The next meeting of the above corporation will be held on Tuesday the 8th inst., in Quebec city.

QUEBEC DENTAL SOCIETY.

A regular meeting will be held on Tuesday evening, the 8th inst., in Quebec city, to elect officers for the ensuing year, and discuss a good programme.

EPITOME OF THE PROCEEDINGS OF FOREIGN SOCIETIES.

[By request of many subscribers, we will resume the epitome of the reports of dental societies in the United States, England and elsewhere; an idea which was original with this Journal, and which we believe is appreciated in this busy age, when subscribers want as much *practical* matter as possible. The purpose in this place is to condense reports, so as to give the gist of discussions, and to omit entirely all reference to elections, and the details of finance, formal resolutions, &c. Instead of filling our pages with these details, which are only of interest to a few, we will aim to select what we judge will be of benefit to the many.]

STATE DENTAL SOCIETY OF PENNSYLVANIA,—June 21, 1870.—In a discussion on "Extracting Teeth," Dr. Magill said he considers simplicity in instruments desirable; uses as few as possible; advocates a low chair; does not recommend lancing gums, except for going through the process, and in that case makes a vertical incision only.

Professor Barker said the operator should study the law of forces, did not think strength so necessary as a correct application of the force; thought the proper use of the upward or downward force one of the elements of success; the alveolus should be crowded out of the way; advocated but one instrument when practicable, especially when administering anæsthetics.

Dr. Gillespie thought lancing not generally necessary except at the posterior side of the wisdom teeth.

Professor Barker said that for taking impressions of palatine defects he uses a piece of sponge, size of the aperture, fastens a wire for the purpose of holding it, saturates the sponge with batter of plaster, and secures the impression in one piece.

"*Treatment of Exposed Pulp.*"—"Dr. Robbins thinks the pain from the application of oxy-chloride of zinc for capping nerves, may be obviated by using a weaker solution of the chloride.

Dr. Gillespie uses carbolic acid as a preliminary application.

Dr. King prefers pure creasote; thinks 95 per cent. of exposed pulps can be saved; does not always fill immediately; sometimes treats for some time with creasote.

Dr. Neidich thinks gutta-percha as good as oxy-chloride of zinc; does not think there is any difference in the action of creasote and carbolic acid; believes the pulps have sufficient recuperative power to close the opening if protected from thermal changes and external irritants; has seen such cases closed by secondary dentine or calcification of the pulp,

without the aid of art; does not believe a diseased pulp can ever be restored to health; in such cases extirpate.—*Dental Times*.

CALIFORNIA STATE DENTAL ASSOCIATION, JUNE 29, 1870.—“*Devitalizing Nerves and Subsequent Treatment*.”—Dr. Younger uses paste of cobalt, arsenic and sulph. morphia to devitalize; removes in 24 hours; treats with chloride zinc, tinct. iodine, iodine and creasote; fills point of fang with cotton steeped in creasote; rest of the fang with Hill's stopping, or gold: fills crown and pulp cavity with gold.

Dr. Menefee uses dry arsenic and morphia; caps with lead, seals with cotton and sandrac and removes pulp next day; treats with fluid extract of ergot, and fills.

Dr. Berk uses spray when possible, and removes pulp at once and fills.

Dr. Roberts applies tinct. aconite, crethrum and chloroform in equal parts for ten minutes; removes pulp without pain and fills.

Dr. Knowles uses spray when possible; thinks a surgical operation better than chemical action, treats with iodine and aconite; does not fill the fang with cotton, nor swab with creasote; nature protests against its use elsewhere—why not in the teeth? Uses creasote only when pulp has been destroyed by chemical action; fills entirely with gold.

“*Bases for Artificial Teeth*.”—Dr. Paine has known cases of diseased mouth cured by substituting vulcanite for gold.

Dr. Bull has met with as many cases of diseased mouths where gold was worn as where vulcanite was used.

Dr. Prother had seen the ill effects of too deep air-chambers; used large shallow ones.

Dr. Bunnell and others believed that the trouble complained of with rubber arose from *uncleanliness*. Referred to a case where the set had not been removed for seven years.

NEW YORK STATE DENTAL SOCIETY, JUNE 29 AND 30.—The Legislature of New York State has conferred on this Society the power to confer the degree of Master of Dental Surgery in addition to the diploma.

Dr. Atkinson read a paper on “Why do teeth decay?” giving a clear statement of the process of the formation of the teeth; commencement and progress of deposit; currents carrying the fluid pabulum; causes of disturbance and consequent effect. Decay results primarily from imperfect formation; imperfect formation is not due to deficiency of material, but to disturbance of the process of deposition and nutrition.

Dr. Abbott, in reference to the use of Hill's stopping, said he puts in the filling and then throws cold water on it to cool it, and then cuts it

off with a sharp instrument. Thinks the practice of driving wedges between the teeth when they are tight together is a villainous practice.

Dr. Elliott to fill roots, puts in first some gold, then ropes of gold mixed with oxy-chloride of zinc.

Dr. Straw thinks a root thoroughly filled with gold from foramen to crown is the best that can be done for it.

INDIANA STATE DENTAL ASSOCIATION, JUNE 28.—The protection of exposed pulps by means of oxy-chloride of zinc was highly approved of.

Dr. Keighly prefers aluminum to rubber.

Professor Watt thought we wanted something more easily manipulated than rubber; was of the opinion that humanity had long enough been poisoned by rubber.

Dr. Morrill has observed a aluminum plate to become impure in the mouth when not much care was taken; advocates rose pearl as a substitute.

AMERICAN DENTAL ASSOCIATION.—10th Annual Meeting, held at Nashville, Tennessee, August 2, 1870. A resolution was adopted to correspond with the publishers of American school books, and "ascertain if some plan can be devised, to have short, plain statements inserted of the number, name, form and arrangement of the several teeth in the deciduous and permanent set.

"*Pathology.*"—Dr. Walker called attention to "the new disease in the mouth from rubber plates." In every case examined he found disease. There is first thickening of the mucous membrane, then sores appear, looking often like a piece of half-boiled beef cut across the grain. He found the processes of the jaw bone often absorbed as a result of this disease.

A lively discussion ensued on the local effects of vulcanite plates, and several spoke very disparagingly of the base. Dr. Walker asserted that the wearing of rubber for artificial sets had produced a new disease in the mouth, due to articles used in the manufacture, such as mercury, etc.

Dr. Morgan had seen few mouths where there was not a disease if artificial teeth were worn. Nature had not intended false roofs to be worn. Cases had been reported where platina and gold had been worn and given trouble. A case was cited of a lady wearing an 18-carat gold plate, who had raw-sores in her mouth; this was cured by wearing vulcanite.

Dr. Kulp had investigated the effects of seven hundred vulcanite plates, one hundred and forty gold, two hundred and thirty silver, ten

platina, and twenty of other bases. In proportion he found fewer mouths in a diseased condition where rubber was worn than where silver; about as many in proportion where gold plate was used. Tin and cheoplastic uniformly produced a diseased condition of the mucous membrane where aluminum having teeth attached with some other compound was used. Unif ronly the testimony was, that rubber was worn with more ease than any other substance, except from its extra thickness.

Dr. Jones said in most of these cases mercury had been found present in the system. He had a patient who could not wear a gold plate but a few times. Every week or so, by taking out the plate, mercury was found upon it, which being driven off by heat, he could wear it. A black rubber plate, highly vulcanized was tried in the gentleman's mouth with success.

Dr. Allen finds that the more continuously persons wear a plate the better it fits. A deep air chamber should not be used, as it draws down the mucous membrane.

Dr. Crouse thought the idea of mercury, quinine or calomel in the system a notion, and erroneous. Thought rubber produced more trouble than other substances, because of its non-conductibility.

Dr. Fowler thought that platina would create inflammation in mucous membrane sooner than any other.

Professor Atkinson—What is the cause of necrosis? Can mercury cause it? I challenge the world to prove it. I hold that until made a binary it cannot enter the system, but may be between the cells as a simple element entangled in the tissues. Anybody who has shot squirrels goes to the hickories. Any one who wants to shoot mercury must not go into the bones, but go along the margins, the alveolar processes. It does not dissolve the tissue. What, then, where a huge necrosis is found? It is syphilis: it is the result of transgression of the connubial law. Treat the case as if it were syphilis.

Dr. Taft said Professor Atkinson seemed to consider all disease due to the introduction of inimical matter into the system. No doubt with some but a small amount will, if introduced, produce trouble. The treatment of wasted alveolar process and diseased bones—namely, the introduction of properly diluted sulphuric acid, so as to dissolve and permit the diseased bone to be washed away—of course requires care and knowledge. He thought sulphuric acid would act without injuring the living part beyond the disease; nitric acid or glacial acetic acid would not operate so well. The method of applying was to open up the cavity and introduce the tent, making but small disturbance among the soft parts around. Requires great care.

"Dental Chemistry."—Dr. Allen—The Creator has taken the trouble to prepare our food properly, and we go to work and throw out the mineral portion. 40 lbs. are taken from every barrel of flour, and a child, it is estimated, uses half a barrel a year. Thus it loses 20 lbs. a year or 400 lbs. in 20 years. Every one knows that hens require lime to make their eggs.

Professor Cutler—Children require in proportion to their weight, more food. When developing, feed with the mineral element, but when the man has matured crowd him with the fine flour. No change takes place in hard tissues after they are once fully formed.

Dr. Allen—In Europe, where the poor do not change the proportion of the food, they have better teeth than the aristocracy. When they come here they lose their teeth, because they neglect to supply the deficiency of loss. It is well established that the hard tissues do change, and it is essential to keep up the supply for the loss to be replaced. We should popularize the idea of grinding up the whole grain as the ancients did.

Dr. Dickerman—May not the climate have something to do with the change of the teeth?

Dr. Allen referred to Humboldt, who says the teeth of Indians of all sections were sound. It depends upon the food.

Dr. Allport thought the teeth in England worse than in this country; among the nobility, good regular teeth are hardly to be found.

Dr. Allen—The teeth of field hands in the Southern States, as a general rule, are good, but the domestics and whites have poor.

Dr. Morgan—The negroes are almost universally scrofulous, and with unsound teeth.

Dr. Carrol—The males have generally better teeth than the females. The air breathed has much to do with it. We ignore too often the food taken into our lungs.

Professor Stellwagen—If the elements necessary for the formation of the dental structures are not introduced into the system, we cannot expect to find well-developed and normal organs. We cannot better select the proportions of our food than has been already done for us by nature. He had seen the benefit in his own family of introducing bran bread. He laid great stress upon the importance of keeping the saliva in an alkaline condition, simply by rubbing prepared chalk around the mouth, pressing it between the teeth upon retiring, and washing out thoroughly, two or three times every day, with lime water. In some fifty cases he had tried, the condition of the teeth was improved by chalk, lime water, bran bread, &c., the dentine becoming harder in some, and less frequently attacked by caries.

Dr. Kulp—A mother can give her children good teeth.

Dr. Crouse advocated cows milk pure for infants.

Dr. Cobb thought it the duty of the dentist to attend to the hard structures, and let the physicians attend to the others.

Professor Taft took exception to the remarks of Professor Cutler, with reference to crowding the system with one kind of food, and depriving it of another. At all times during life the phosphate of lime is required; he does not believe that the system will take up any more than is required. That the bones will be solidified by any increased amount of mineral material in the food, he thinks a fallacious doctrine.

Professor Bogue—There is one point that may be brought in, that of discoloration of dental tissues. This may be due to hæmatin, iron, or one or both, if it exists within the dentinal tubuli. He conceived it due to the oozing of the contents of the blood globules into the dentinal tubuli. *Cosmos.*

(To be continued.)

SELECTED ARTICLES.

HEREDITARY TRANSMISSION OF DENTAL IRREGULARITIES.

BY J. H. MCQUILLEN, M.D., D.D.S.,

Professor of Physiology in Philadelphia Dental College.

The transmission from parents to their offspring of normal and abnormal characteristics in the re-appearance, generation after generation, of the same features, colour of the hair, tones of the voice, movement of the body, etc., and of such diseases as phthisis, scrofula and gout, is a subject of general recognition. This tendency to the reproduction of individual peculiarities in the descendants of a human being is in no portion of the organism made more markedly manifest than in the structure, size, form, and relative position of the teeth. Particularly is this the case in the re-appearance of irregularities of the teeth, in which, with almost photographic exactness, the same tooth or teeth occupying a malposition in the mouth of a parent are frequently reproduced in the children and grandchildren. In illustration of this, I propose to present a series of carefully recorded cases which have come under my own observation, and then to inquire into the causes producing and the law controlling such phenomena.

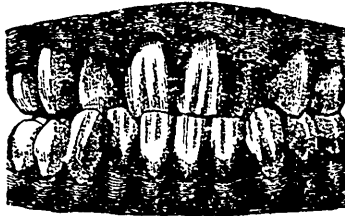
As a case in point, the father of a family of four children, a daughter and three boys, has the two superior lateral incisors standing slightly within the superior dental arch, so that in the occlusion of upper and lower teeth, when the jaws are closed, the right inferior canine strikes outside of the superior lateral incisor and canine.

Although the irregularity was not so decided as to attract general attention, he called upon a dentist when a lad, sixteen years of age, to consult him relative to its correction, but was assured that it would be a waste of time to make the attempt; several years later, after reaching manhood, an unsuccessful effort was made.

Of the children of this gentleman, the daughter, aged sixteen, up to a few months ago had the superior lateral incisors standing very far within the arch, the right superior incisor also deviating slightly. Owing to a fall when four years of age, in which the upper jaw of the right side was slightly injured by striking against the edge of a table, and no doubt making a serious impression upon the follicle of the right superior canine, that tooth has failed to make its appearance. In the lower jaw the right lateral incisor stood so far within the arch as to press upon the tongue and interfere with distinct articulation, and the central incisor and canine were quite close to each other, almost concealing the lateral from view.

On bringing the upper and lower teeth together, the right superior central incisor closed *inside* of the inferior central and *in front* of the inferior lateral, while the superior lateral was back of the inferior canine and the left superior lateral inside of the inferior one, producing an articulation as shown in the accompanying illustration Fig 1.

FIG. 1.



The irregularity in this case was so marked as to attract general attention, and the occlusion of the teeth, had it not been corrected, would have eventuated in a permanent and unsightly prominence of the lower jaw most destructive to the harmony of the features. In the course of two

months, with a very simple, easily constructed appliance, which could be readily adapted by the patient, the defective position of all the teeth was corrected, and a result obtained most gratifying to the patient: completely changing the appearance of the mouth, and greatly improving the expression of the face.

The fixture employed consisted of a silver bar of the thickness of or-

dinary lower plate for artificial dentures, two inches in length by a quarter of an inch in width, perforated by four holes, and then, with a thin, flat file, cuts were made from the edge of the bar to these holes, making a fixture similar to the lower figure in the accompanying

FIG. 2.



illustration Fig. 2. India-rubber rings, cut from French tubing, were readily passed over the bar (which rested on the front surface of the superior incisors) and around the deflected teeth. The constant, gradual contraction of the rubber drew the lateral incisors into their proper places in the arch. A bar of similar construction was also used in the lower jaw. After becoming familiar with the necessary manipulation, the application of the fixture was made entirely by the patient, thus relieving the operator of considerable trouble. The propriety of employing a fixture of this kind in such cases was originally suggested by me in the November number of the DENTAL COSMOS for 1859.

In the eldest boy of this family, aged fourteen, the superior lateral incisors deviate from the regular line of the upper arch, but not sufficient to excite comment or close inside of the lower teeth.

The second boy, aged eleven, has the superior lateral incisors so far within the arch as to be half hid by the adjoining centrals. In the occlusion of the upper and lower teeth the superior laterals of course strike inside of the inferior ones.

In the third boy, aged seven years, the permanent central incisors have erupted, while the laterals have not yet made their appearance. The indications are, however, that there will be a repetition, in some degree, of the prevailing type in the other cases. *Cosmos*.

(To be continued.)

PROPER STEAM ROOM IN VULCANIZERS.

Fluids are much more expansible than solids, and the expansion of a No. 2 vulcanizer full of water, would be about a fluid ounce in going from ordinary temperature at 212°, and as the ratio of expansion increases with the temperature, it is fair to assume that at 320° it would amount to two or three ounces in bulk. The force of expansion, it must be remembered, is practically irresistible in solids or fluids. A steel vulcanizer, with sides an inch thick, would not resist it. This fact will show the absolute necessity of allowing a proper amount of steam room in vulcanizers, at least half an inch, and may account for some otherwise unaccountable cases of explosion.—*Dental Advertiser*.

HOW TO TRUE A CORUNDUM WHEEL.

BY C. H. BENNETT, LIVERPOOL, N. Y.

In making good joints true wheels are indispensable. The method which I have adopted with entire satisfaction cannot fail to be of benefit to others. The wheel being adjusted to the spindle, a piece of sponge well saturated with alcohol should be placed in contact with it. Revolve the wheel very rapidly, holding a piece of corundum slab against the uneven surface. The friction will produce just heat enough to cause the alcohol to dissolve the gum shellac on the surface of the wheel, and in a few minutes it will become perfectly true, clean and sharp.—*Cosmos*.

BLACKENED FORCEPS, &c.

BY A. A. DE LESSERT, ABERDEEN, SCOTLAND.

Prof. Inglis, of the Aberdeen University, has all his midwifery instruments blackened in the same way as the volunteer rifle barrels. This takes away from the sharp, formidable appearance of bright steel, prevents the rust, and is much more easily kept clean. It does not in any way injure the tempering of the steel.

I feel sure this will be a valuable hint to dentists in regard to their forceps and many other instruments. Almost any gunmaker can do it for a mere trifle, and in the case of new instruments the cost would be still less, as the blacking would take the place of a great amount of the finishing of the surface.—*Brit. Jour. Dent. Science*.

DESTROYING THE PULP WITHOUT PAIN.

BY J. NEELANDS, L.D.S., LINDSAY, CANADA.

A great dread of the operation of destroying the pulps of teeth seems generally to prevail among patients, owing to the severe pain which is usually experienced after the application of the arsenical paste, as in most cases used. Some two months ago I accidentally discovered that by applying a small quantity of carbolic acid to the pulp of the tooth, and allowing it to remain for ten or fifteen minutes, after which it may be removed, and then applying the arsenical paste, little or no pain whatever is experienced. I have adopted this mode in quite a number of cases, and there has not been a single failure. By diluting the crystals with about an equal quantity of water, the carbolic acid may be inserted into the cavity on a little cotton with the point of an excavator. In full strength, the carbolic acid is a powerful escharotic; and to prevent

injury to the gums, it is advisable to cover it with a solution of gum sandrac, or some other preparation. I would recommend others to try this method and see if their experience coincides with mine. *Cosmos.*

OS ARTIFICIEL IN A NEW FIELD.

BY H. V. KAGEY, ARCOLA, ILL.

Long after a desired distance has been obtained in separating crowded teeth, we are generally obliged to continue the use of wedges for a longer or shorter period of time. And these, if not frequently renewed, will cause trouble. Now, in order to avoid this continual renewing, and evil if not renewed, I use oxychloride of zinc. Fill the space, obtained by previous wedging, with a small pledget of cotton, thoroughly saturated with the os artificiel. This, while soft, can readily be adapted to the different angles and surfaces of the teeth; and when once hard, will serve as a *prop* that will stay. Other advantages, as colour, etc., will be apparent to all. When desirable to remove it, file as in separating. *Cosmos.*

BIBLIOGRAPHICAL NOTICES.

MANUAL OF THE DISCOVERY, MANUFACTURE AND ADMINISTRATION OF NITROUS OXIDE. BY F. R. THOMAS D.D.S., PHILADELPHIA, S. S. WHITE, 1870. This neat little *brochure* of 122 pages is designed to furnish information relative to the use of nitrous oxide in dentistry. It is plain and practical, illustrated by 22 wood cuts, of apparatus, position in operating and forceps adopted for various cases. Its contents consist of clearly written chapters on the discovery, introduction and manufacture of nitrous oxide, its degeneration, administration, potency, safety, resuscitation, physiological action, its administration for operation in general surgery, &c., &c. We can recommend it as a useful and concise little manual.

THE PHYSICIAN'S VISITING LIST FOR 1871. LINDSAY AND BLAKISTON, PHILADELPHIA. We have received the above very compact and convenient engagement book for medical men, which is now so popular with the profession. It contains an almanac for 1871 table of signs :

Hall's ready method in asphyxia, poisons and their antidotes; table for calculating the period of utero-gestation; blank leaves for visiting list; for monthly memoranda, addresses of patients, nurses, obstetric and vaccination engagements, &c., &c.

EDITORIAL.

PROSPECTUS OF VOLUME THIRD.

Having confidence in the good will and spirit of the Canadian dental profession, to whose interests this journal is especially devoted, we enter upon our third year with renewed vigour, and a determination to be punctual, to improve in every possible respect, and to make the dental periodical of this Dominion a credit to the Canadian profession, at home and abroad.

The arrangements made for punctual issue, illustrations, &c., necessarily increase the cost of publication, and we have specially to ask our subscribers to encourage us by a prompt remittance of their subscriptions before the 1st of December.

1. The date of publication for the future will be the 1st instead of the 15th of each month.

2. Original wood cut illustrations, engraved by one of the best artists in the Dominion, will be given as often as possible. We also hope to be able occasionally to present our readers with valuable illustrations appearing in other periodicals.

3. Particular attention will be paid to condensing, without spoiling, the reports of Foreign Dental Societies, omitting all reference to matters of no practical moment, such as finance, elections, &c.

4. Several changes have been made in the general appearance and arrangement of the journal, which will, we trust, meet with approval.

5. Dr. G. C. Daboll, of Buffalo, has accepted a corresponding editorship, and will assist us.

6. The "Editorial Notes on Practical Subjects" will be discontinued, in order to give more prominence to the contributions of others.

7. We will regularly receive every Dental Journal in the world, and a large number of medical and other scientific periodicals, from which judicious selections will be made.

8. Cash in advance. The principle of cash in advance is the only safe one to work upon in publishing a journal of this kind, which is limited to one profession, and is not published as an advertising auxiliary of

any manufacturer or college. So far it has been pretty fairly responded to, but we have decided to ask the profession, without a single exception, to comply with these terms before the 1st of December. The principle is one which ought to be encouraged by all who wish the journal well.

We will give a great deal of our labour and time,—and time alone is money to a dentist,—without pecuniary remuneration, to bring out this periodical month after month; and every cent, and more, of its income will be spent towards defraying the actual cost of publishing. We would be very glad to add 16 pages more if we felt warranted in doing so, but this, with other improvements, must depend solely upon our subscribers. We hope that we will not be obliged to dun, but that those who receive this number, will at once sit down and enclose their subscriptions *before they forget it.*

W. GEO. BEERS, L.D.S.,
40 Beaver Hall Terrace, Montreal.

WORDS IN SEASON.

No better testimony to the progressive character of dental science and art can be afforded than the fact that in a comparatively short while after the issue of text-books, they are, to a great extent, behind the times; and authors only maintain their reliability on practical points by new editions. An intelligent profession, therefore, naturally demand intermediate guides to pick up the newly made links in the chain of progress, and to concentrate the various additions to the stock of professional lore made from day to day. This want is so appropriately supplied by dental periodicals that they have become more indispensable to the dentist than any one unacquainted with the progress in the theory and practice of dentistry would at first conceive.

Theories revered not many years ago as profoundly perfect are superannuated; methods of working, instruments and appliances which caused operators ten years ago to swear like troopers, are now almost traditional, and we have got so accustomed to the ever-increasing progress made by our inventors and manufacturers, that we receive with sublime *nonchalance* some ingenious improvement destined to revolutionize our practice. In fact,

“ We think our fathers wrong, so wise we grow;
Our wiser sons, no doubt, will think us so.”

In almost every part of the world where dentistry has any local habitation, the profession are fully awake to the necessity for higher education,

associative effort, and legislation. The narrow-mindedness of the old times, when lips were sealed and laboratories were sanctums, has almost disappeared; and only a few examples now exist among us of the scrupulously secretive practitioner, who strives to save his declining reputation by sneering at and ignoring his more liberal *confreres*.

The progress of practical dentistry in Canada has kept pace with the times. Never has there been in the history of the Canadian profession, such active thought or more noble aspiration as exists to-day; and, we may add, such determination to so raise its character and condition, as to claim for it the honorable professional and social position it has fairly earned and received elsewhere. In this ambition, liberal men of all learned professions will sympathize, and an intelligent public will one day have reason to feel grateful.

Three years ago we in Canada had no moral or legal right to call ourselves a profession; there was no co-operation on any point, no association, and many regarded dentists as a nondescript sort of beings, something of a cross between quack doctors and boss carpenters.

To-day dentistry in Canada is as legally a profession as medicine or law; public confidence in it is greatly increased; associations for mutual improvement meet regularly; boards of examiners test the qualifications of those who desire to practice, and the dental acts of incorporation of Ontario and Quebec confer a decided *status*, which cannot be mistaken. In this connection, may we not venture, as modestly as possible, to say, that this journal, now in the third year of its existence, has helped the good work of reform, and materially contributed to reflect the honor and intelligence of the Canadian dental profession? May we not venture to say that through it the dental profession of this Dominion, as a body, receives an amount of respect and fraternity at home and abroad, they could not possibly obtain without such a medium? Be this as it may, we will conscientiously and earnestly continue to use this journal, to advance the intelligence and prosperity of the Canadian profession in particular, and to promote community of professional intercourse and liberality of sentiment, a work in which every dentist has a personal interest, and should assume a personal share, by giving this journal his hearty sympathy and prompt support. B

" READ, COMPARE, DIGEST."

"Read, Compare, Digest" is a motto that could be adopted with advantage by every member of the Dental Profession.

The successful dentist of to-day is the man that reads, and by success

we do not mean to use the word in the pecuniary sense, but in that broader interpretation that means the attainment of high position among compeers, the respect of competitors, and the accomplishment of works, that more than anything else demonstrate true merit. The dentist should be posted in everything that concerns him in his character as an operator in dental surgery, from the record of new discoveries, inventions and improvements to the essays and dissertations on their practical application. The mind is thus constantly stimulated and kept bright by contact with new thoughts and ideas, which rapidly amalgamate with the practice, correcting errors, dispelling doubts and imparting general strength. The dentist that reads acquires confidence; not that variety, however, that springs from an excessive development of the organ of self esteem, but the confidence of intelligence of reason, the result of the practical application of the motto that heads this article. That the rapid advancement of the profession for the past twenty years is due in a large measure to its literature, will be conceded by every one, and the importance of a literature devoted to a special interest is shown by the fact that there is scarcely an enterprise in successful operation to-day, of any character, that has not its journal, through the columns of which its peculiar interests are advanced. The legal standing which the profession is rapidly assuming on this continent calls for a much higher standard of excellence than has been required heretofore, and that *call* is arbitrary. The student is obligated to observe it and the man in full practice must look to his future. *He must "read, compare and digest."* To furnish something worthy the attention of the profession, a channel through which some good might flow, has been our aim for the past year. The Journal is in its infancy, but its life thus far has been one of health and strength, and the promise is good for the future. With this number commences the third year and third volume, and inspired by the past we hope to fulfil our promise, that among our columns much will be found that will furnish food for reflection, and be read with profit.

D.

THIS NUMBER

Has been purposely delayed until November, in order to insure future punctuality, and we hope to have every succeeding number posted to subscribers two days before the 1st of each month. We send this number to every dentist whose address we could obtain. Those in Canada who do not intend to encourage it, will please return this copy with their names marked in one corner. Those who do intend supporting it will

please forward their subscriptions before the 1st of December next, as we are obliged to adhere to the principle of cash in advance, owing to increased expenses and the difficulty of collecting after the year has expired. We will therefore not send the *JOURNAL* after this number to those who do not remit before the 1st of December, as we will take non-compliance with that rule as equivalent to a refusal to subscribe. *Remit before you forget it.*

“THE PYROXYLINE” BASE FOR ARTIFICIAL DENTURES.

We will publish the full instructions for using the above base in the January number. As the agent charged \$5 for the secret, every subscriber who remits his subscription before the 1st of December, will get these instructions and the *Journal* for one year into the bargain, for less than half the cost of the former. The days of secrecy are past.

PILING ON THE AGONY.

Our contemporary, the *Dental Office and Laboratory*, has a “cure for piles” in a recent number, from a correspondent. We would simply have enjoyed it as a good joke but for the editorial endorsement, “we hesitate to denounce this as untrue because it does not come within the range of our belief. If we reject all from our belief that is not capable of demonstration, then indeed is our creed a short one. “There are more things in heaven than are dreamt of in your philosophy, Horatio.”

Here is the cure: “Carry a piece of alum about the size of a hickory nut in your pocket (pants,) with your keys, knife, &c.; and a horse chestnut in the other pocket.”

This is mysteriously profound. We suspect the Illinois correspondent has been humbugging, but if our contemporary has any real faith in such cures as the above, will he please ask some one to try the cure suggested by a friend of ours, which is not patented. Float a hair from the tail of a kangaroo in a distilled dew drop, and swallow on a periwinkle before going to bed, at the same time sneeze and say “Ss-kat.” That’s infallible. “There are more things in heaven than are dreamt of in your philosophy, Horatio.”

B.

OUR ADVERTISERS.

We ask the profession in Canada, who are now a large and important body, to patronize liberally those gentlemen who advertise in our *Journal*

during the year. It pays to have a good stock; it facilitates business, by saving time and temper; and when our *confreres* have money to spend we hope they will spend it with our advertisers. Enterprise on both sides pays.

We have to thank Prof. McQuillen, editor of the *Cosmos*, for the presentation of electrotype duplicates of the illustrations to accompany his article on "Hereditary Transmission of Dental Irregularities." "Three more illustrations will accompany the continuation of the article in the next number."

MISCELLANEOUS.

A dentist in Philadelphia has traced out the career of 1,000 dentists with this result: 163 died before they reached middle life, 643 attained fair success, 57 made fortunes, 27 died from intemperance and other vices; 96 failed entirely; and 3 committed suicide.

Use hydrate of chloral for your very nervous patients, about fifteen minutes before you operate. Give them from 20 to 28 grains in an ounce of water. It acts like magic.

He is a wise dentist who knows his own teeth.

Ambrose Paré was the first to scarify the gums in difficult dentition, making his first experiment upon his own son.

Dentists are scarce in China; their fees are very high; and a man in Canton with the toothache would have to go to Hongkong for a remedy. "It might," says the British consul, "cost one of the community a total sum of between 20*l.* to 25*l.* to get a single tooth stopped properly."

Old advertisement curiosity—The reader will not peruse without interest the following specimen of curious advertisement of olden English times bearing date 1786.

Martin Van Butchell, Surgeon Dentist, attends at his house in Upper Mount street, Grosvenor square, always from 10 till 4; open till dusk. Advice £1 1*s*; taking out a tooth or stump £5 5*s*; a whole under row, £42; upper row, £64; an entire set, £105. Natural teeth, £10 10*s* each. No transplanting. No annual patients. N. B. The money paid first.

A colleague of ours has a nice way of administering consolation preparatory to extracting a tooth. "Sit a little higher up, please, *and you'll be more comfortable.* Just a little higher, *and you'll enjoy it all the more.*"

Use holly strips for polishing gold filling in approximal cavities.

GUILLOIS' CEMENT.

In response to frequent inquiries, we are now prepared to furnish this Cement.

There are four shades, Nos. 1, 2, 3, and 4, indicated by a sample attached to each package. No. 1, bluish; No. 3, bluer; No. 2, yellowish; No. 4, yellower.

From a communication to the *British Journal of Dental Science*, by Charles James Fox, M.R.C.S., L.D.S., we give the following extract:

"I have been for some time expecting to see some communication respecting this cement, recently introduced, as every one who tries it expresses privately extreme satisfaction with it. When this is the case, I think it is only fair to say so publicly. It is of the same nature as that common called osteoplastic, but it differs from it in this particular, that it can be mixed to a consistence much resembling putty, and in that state can be manipulated for some minutes without setting irretrievably. If you mix the other osteoplastics as thick as this, they set rapidly or crumble; if you use them in a thinner condition, they run about on the gums and teeth. When once set it is so hard, if it has been properly manipulated, as to turn the edge of the instrument, should it be deemed requisite to remove it. As to its durability, it is of course impossible to say much, seeing that it has only been introduced into England for a few months; but this much may be said, that, taking four months' experience with other cements, and four months' with this, I have found it so superior that I have entirely discarded all other osteoplastics, amalgams, etc. In small cavities in the incisors, or in shallow cavities where osteoplastics would wash out in a short time and dissolve away, Guillois' Cement remains at the end of four months as good as when it was put in. I cannot tell what further experience may prove, but so far—and only for four months' experience do I speak—I have not had one failure, which is more than I can say of any other."

Put up in one-ounce glass-stoppered bottles—the liquid in a drop-bottle—directions accompanying. Postage free.

Price, per box..... \$5.00

CEMENT PLOMBE.

(THE CELEBRATED GERMAN CEMENT FILLING.)

This Cement is very highly recommended by those who have used it.

There are four shades, Nos. 1, 2, 3, and 4. No. 1, light; No. 2, cream color; No. 3, yellow; No. 4, dark blue.

Put up in one-ounce glass-stoppered bottles, the liquid in a drop-bottle.

Price, per box..... \$3.00

CEMENT LAC OR VARNISH,

FOR PROTECTING THE FILLING WHILE HARDENING.

Price, per bottle..... \$1.00

SAMUEL S. WHITE,

Philadelphia, New York, Boston, Chicago.

NEW AMALGAM.

A beautiful and excellent preparation for filling teeth. For this new combination of metals (chemically pure) for dental purposes, great superiority is claimed over ordinary Amalgams. It will remain bright for years, and, *when used according to directions*, will preserve teeth more perfectly than any article in use, except gold; and under many circumstances can be successfully used for the permanent preservation of teeth when gold would prove a failure in the hands of a large majority of operators.



The process of combining and purifying the metals is such as to guarantee comparative freedom from the tarnish of fillings, or discoloration of teeth, so often observed from the use of ordinary Amalgam. Ten years' experience with it in the hands of some of the most skillful members of the profession has proved its excellence. The increasing demand for a reliable Amalgam has prompted the introduction of this article, with the confidence that it will give entire satisfaction to those who use it rightly.

To manufacture a superior Amalgam, always uniform in quality and texture, at a moderate cost, it is necessary to make it in large lots, and by the aid of machinery. It is also necessary that each lot be thoroughly tested by a competent Dentist before offering it for sale. The inventor has made such arrangements for its manufacture as to enable him to guarantee the reliability of every package.

To meet the wants of different operators, two grades of the New Amalgam were manufactured (fine and medium coarse).

Hereafter but one grade will be put up, which will consist of the two grades combined, and will be put up in *quarter, half and one-ounce* packages, with circular of instructions accompanying each, with trade-mark of manufacturer on each package and circular.

Retail Price, per oz..... \$4.00

Manufactured by Dr. B. F. Arrington.

All orders, wholesale or retail, will be filled by the undersigned, at his Depots.

TOWNSEND'S AMALGAM.

Price, per oz..... \$2.00

TOWNSEND'S AMALGAM, IMPROVED.

A very Superior Article, put up in 1 oz., ½ oz., and ¼ oz. packages,

NONE SOLD IN BULK,

Price, per oz..... \$3.00

LAWRENCE'S AMALGAM.

Price, per oz..... \$3.00

WALKER'S EXCELSIOR AMALGAM.

Price, per oz..... \$4.00

All the above will be supplied to dealers at Manufacturers' rates.

SAMUEL S. WHITE,

Philadelphia, New York, Boston, Chicago.

Gold Foil.

Our Adhesive Foil, (in Brown Envelopes,) is more popular than ever with the profession, and its manufacture receives our unremitting care. We, however, call ESPECIAL ATTENTION to our Non-Adhesive or SOFT FOIL, (in Carmine Envelopes,) which has recently been very greatly improved. By annealing it, any desired degree of adhesiveness can be obtained, and an unusually excellent Adhesive Foil secured.

We make Nos. 3, 4, 5, 6, 10, 20, 30, 60, 120, SOFT and ADHESIVE FOIL at FIVE DOLLARS PER BOOK, Thirty-Eight Dollars per Ounce. Also No. 2 ADHESIVE at TWENTY-FIVE CENTS per Book Extra

SOLD BY ALL DENTAL DEPOTS

M. M. JOHNSTON & CO.,
Depot, 816 Broadway, N.Y.

M. M. JOHNSTON & CO.'S

Cleansing Paste

FOR THE HANDS,

DEPOT, 816 BROADWAY, N. Y.

Vulcanizer, Rubber, Plaster, and all Laboratory Stains are more speedily and easily Removed from the hands by this preparation than by any other. It contains nothing corrosive, but will keep the hands soft, white, and free from chapping.

PRICE. FIFTY CENTS.

FOR SALE AT ALL DENTAL DEPOTS.

1,000 FINE ADHESIVE AND SOFT GOLD FOILS.

UNITED STATES ASSAY OFFICE, NEW YORK, MAY 8, 1861.

This is to certify that I have assayed some scraps of "Dentists' Gold Foil," submitted to me by M. M. JOHNSTON & Co., of this City, and I find the same to be absolutely pure gold 1,000 fine.

JOHN TORREY, U. S. Assayer.



BROWN Envelopes indicate ADHESIVE FOIL.

CARMINE Envelopes indicate SOFT Foil.

M. M. JOHNSTON & CO.,

Dental Depots,

816 Broadway, N. Y., and 20 Fulton Ave., Brooklyn, N. Y.

SAMUEL S. WHITE,

MANUFACTURER AND IMPORTER OF,

AND

WHOLESALE DEALER IN,

ALL ARTICLES APPERTAINING TO DENTISTRY.

**Porcelain Teeth, Dental Instruments, Gold and Tin Foils,
Gold, Silver, Platina, and Aluminium Plate and Wire,
Operating Chairs, Rolling Mills, Lathes, etc.**

Hypodermic Syringes,

Nitrous Oxide Gas Apparatus,

Inhalers for Nitrous Oxide, Chloroform and Ether,

TOOTH POWDERS, PASTES AND SOAPS,

MOUTH WASHES,

DENTAL AND MEDICAL BOOKS,

And every conceivable article needed by the Dentist, either for the
Office or Laboratory.

Publisher of the "Dental Cosmos." Specimen numbers
sent on application.

A large Illustrated Catalogue sent to any Dentist or Dealer.

Forty-three (43) First Premiums received for Teeth and Dental
Instruments.

SAMUEL S. WHITE,

MANUFACTORY AND PRINCIPAL DEPOT:

CHESTNUT ST., CORNER OF TWELFTH, PHILADELPHIA,

BRANCHES:

767 and 769 Broadway, New York.

13 and 16 Tremont Row, Boston.

121 and 123 State Street, Chicago.

LAWRENCE'S AMALGAM.

THE BEST IN THE MARKET.

Tried and found Reliable.

THIS Amalgam was invented by DR. AMBROSE LAWRENCE, of Lowell, Mass., in 1847, and has been used by him and many others since, with entire satisfaction. The metals of which it is composed are combined in such proportions as, after many experiments, have been found to afford the best results; and the fact that for many years it has received the favor of almost the entire Dental profession in this country, and, to a large extent, in foreign countries, also, renders any labored praise of its qualities unnecessary.

Its reputation is already established; a result of its working qualities, apparent in the fact that it makes a very uniform paste,—so tenacious that it can be readily adapted to the most difficult or irregular cavities—that from its great density it is not permeable to the fluids of the mouth, and will neither crumble nor wear away in mastication.

If used according to directions in cavities *properly prepared*, it will tarnish very little, if any.

N. B.—Dealers, as well as Dentists, should bear in mind that our Amalgam is never sold in bulk, nor in any other than our LITHOGRAPHED ENVELOPES, with our MONOGRAM TRADE MARK, on the lap.

This caution becomes necessary in consequence of some unprincipled parties offering worthless amalgams, of their own make, using our name to insure a sale. No one has our recipe nor the right to use our name in the manufacture of amalgams. "A word to the wise is sufficient."

Directions for using Lawrence's Amalgam accompany each Package.

RETAIL PRICE, \$3.00 PER OUNCE (TROY).

FOR SALE AT THE DENTAL DEPOTS.

And by the Proprietors (and only **MANUFACTURERS**.)

DRS. A. & G. W. LAWRENCE,
No. 9 John Street, Lowell, Mass.

OXYCHLORIDE OF ZINC.

This article has been in use for the last eight years; the call for the same increasing as its availability as a Medico-Mechanical agent has become known. Similar articles have been brought to the notice of the profession under the names of Os-Artificiel, Osteoplastic, Bone Filling, &c.

We quote from the *Materia Medica* compiled by James W. White, and published by Samuel S. White, of Philadelphia:

"This preparation has been extensively tested as a capping or temporary filling over freshly exposed pulps, and with results which are represented as highly gratifying. For this purpose the solution should be diluted with water so as to be only just strong enough to cause the mixture to set. On its removal, months after, the subjacent-pulp has been found healthy, and even protected by a deposit of secondary dentine. The success which has attended its use gives hope of relief from the necessity of extirpating exposed pulps, when they have not taken on a highly inflamed condition. The cavity having been cleaned, creosote should be applied to the exposed pulp, and the oxychloride introduced in a semi-fluid state. The pain experienced varies in intensity. It is generally of short duration, but may in exceptional cases continue for an hour or even longer. The permanence of this material greatly depends on its being perfectly protected from the fluids of the mouth till it becomes quite hard (requiring about half an hour), which may be assured by any of the methods deemed most advantageous for preventing the ingress of saliva; the rubber-dam, in this connection, as in the insertion of gold, proving a most valuable appliance. It is best to introduce a surplus of material, to admit of trimming to proper shape, which may be done at once, although it is advisable to cover it with a layer of gutta-percha in chloroform, and allow several days to intervene, for the more thorough solidification of the cap prior to the removal of the excess of material and final insertion of the metal stopping.

"There is another direction in which oxychloride of zinc proves a most valuable adjunct in efforts for the preservation of teeth, viz., in filling the bulk of cavities in treated teeth. By this method many advantages accrue, among which may be mentioned the saving of time and expense, with an equally durable result; the diminution of the risk of periodontitis, so liable to supervene upon prolonged violence; the avoidance of risk of fracture in frail teeth, and the equal support insured; the obviation of the yellow color when the enamel is thin; and, in the event of subsequent trouble, the comparative ease with which its removal may be effected. The gold must of course leave no portion of the oxychloride exposed.

"This material is likewise employed for securing the effects of chloride of zinc in the hypersensitiveness of dentine,—used as a temporary filling, and allowed to remain until, in the judgment of the operator, its effects are induced. Should tenderness recur in excavating, a second and even a third application may be found advantageous."

It has the entire confidence of many of the best men in the profession as a thoroughly reliable article. It is manufactured with great care and with uniformity, and is believed to be the best preparation of its kind in the market.

It is now put up in larger sized, glass-stoppered bottles, giving double the quantity that it formerly had.

For sale by all the principal dealers in dental materials throughout the United States and Europe.

Price, per box, \$1.00.

Prepared by

J. H. SMITH,
New Haven, Conn.

C. H. HUBBARD'S TORONTO DENTAL DEPOT,

ESTABLISHED 1860.

THE MOST EXTENSIVE FURNISHING ESTABLISHMENT
IN CANADA, AND

GOLD FOIL MANUFACTORY.

Having greatly increased my stock of Dental Materials, I am now prepared to furnish Dentists with everything needed in the practice of their profession, including Operating Chairs, Instrument Cases, Lathes, Vulcanizers, Nitrous Oxide Gas Apparatus, Cabinets, Works on Dentistry, Anatomical Preparations, etc., etc.

A full and complete Stock of S. S. White's Celebrated, and all other makers of
"PORCELAIN TEETH,

At Manufacturers' prices. Would also invite the attention of the Profession
to my

IMPROVED GOLD FOIL.

Present price \$3.50 per $\frac{1}{2}$ oz.

SPONGE AND SHRED GOLD.

AND IN PARTICULAR TO MY

DOUBLY REFINED ADHESIVE GOLD FOIL,

To which I would respectfully invite comparison with the
best in the market.

Also, other makers' Foil at their prices.

Agent for Canada Journal of Dental Science, also, Agent for S. S. White's Dental Cosmos. Gasometers, and other Nitrous Oxide Apparatus, and Nitrate of Ammonia.

All the Dental Text Books, recommended by the Boards of Ontario and Quebec supplied.

C. H. HUBBARD.

Toronto Dental Depot, 26 Adelaide St. West,
BETWEEN YONGE & BAY STREETS.

☞ The Highest Price paid for Old Gold and Silver Plates, Scraps, &c.

All orders addressed to C. H. HUBBARD, Toronto, Ont., will receive careful and prompt attention.

CHANDLER'S
Canadian Dental Depot,
NEWCASTLE, ONTARIO,

**The oldest and most extensive Establishment of the kind
 in the Dominion.**

I AVAIL myself of the opportunity afforded by the *Canada Dental Journal* to express my thanks for the liberal patronage I have heretofore enjoyed from the Dental Profession, and trust by promptness and attention on my part to merit increased favor in future.

Being a Practical Dentist of over twenty years' experience, gives me facilities for purchasing and selecting goods to thoroughly meet the requirements of my customers.

My Stock consists of a Large Assortment of all

Instruments, Furniture & Material

used by the Dental Profession.

The Catalogue of any Manufacturer or Dealer in Dental Goods may be used in ordering from me, and all goods will be sold as low as can be obtained elsewhere.

D E N T A L G O O D S

AT WHOLESALE AND RETAIL.

**A large Stock of White's, Justi's, Johnson and Lund's and
 other makers' Teeth always on hand.**

Constantly on hand a good Stock of all the most popular makers,

G O L D F O I L S ,

AND OTHER

Gold Preparations for filling, and at Manufacturer's prices.

I wish the Profession to distinctly understand that I intend always to be up to the times, in all the new inventions and improvements in all things pertaining to Dentistry.

Every article sold by me is warranted as represented, and in all cases, if not in accordance with the order, will be exchanged or the money refunded.

Dentists about commencing business, as well as those replenishing, are requested to call and examine my Stock.

☞ All orders addressed to S. B. CHANDLER, Newcastle, Ontario, will receive prompt attention.

DR. CYRUS M. KELSEY'S

NEW AND IMPROVED METHOD OF

VULCANIZING RUBBER,

FOR

DENTAL PLATES

AND FOR OTHER PURPOSES.



PATENTED AUGUST 10TH, 1869.

A SAFE, SIMPLE AND CHEAP PROCESS OF VULCANIZING RUBBER, ESPECIALLY FOR DENTAL PURPOSES.

The following are some of the advantages claimed by the Inventor.

It vulcanizes any number of pieces at once, owing to size of apparatus. The air is excluded from the flask while vulcanizing, the gum being thus prevented from becoming brittle, and will shave like horn.—There is no iron rust. The flask is always perfectly clean. There are no screws, bolts or wrenches. No danger of over-heating. *No possibility of explosions.* No danger of breaking teeth, as it heats and cools gradually, and is always uniform.

Useful for casting plate. Heating up casts, and packing rubber, all done by this instrument.

The apparatus is so constructed as to make any size required. By this process, better work can be done. The rubber vulcanized is tougher, of finer texture, and can be made of ANY DEGREE OF FLEXIBILITY, ELASTICITY OR HARDNESS DESIRED. All kinds of rubber gum can be vulcanized by this method; by means of which Plates are made of better color, tougher and more durable, and made to fit better than is possible by the old mode.

It was invented by a practical Dentist of over twenty-five years experience; and has been by him tested in every possible way, and in all cases with the most satisfactory results. The patentee once experienced an explosion of a steam vulcanizer, which prompted him to invent a process by which such results could be avoided, and has succeeded.

Full directions sent with each machine. Apply to

C. M. KELSEY, Mt. Vernon, Knox Co., O.

Prices	{	No. 1.	\$15.00.	} Either for Gas, Kerosene or Alcohol.
		No. 2.	20.00.	
		No. 3.	25.00.	

PHILADELPHIA DENTAL COLLEGE.

EIGHTH ANNUAL SESSION, 1870-71.

FACULTY.

J. H. McQUILLEN, M.D., D.D.S., Professor of Physiology.
 HARRISON ALLEN, M.D., Professor of Anatomy and Surgery.
 D. D. SMITH, D.D.S., Professor of Mechanical Dentistry and Metallurgy.
 S. B. HOWELL, M.D., Professor of Chemistry and Materia Medica.
 T. C. STELLWAGEN, M.D., D.D.S., Professor of Dental Pathology and Operative Dentistry.
 WILLIAM C. HEAD, D.D.S., Demonstrator of Operative Dentistry.
 CHAS. J. ESSIG, Demonstrator of Mechanical Dentistry.

CLINICAL INSTRUCTORS.

J. FOSTER FLAGG, D.D.S., *Phila.* C. A. KINGSBURY, M.D., D.D.S., *P. sila.*
 GEO. W. ELLIS, M.D., D.D.S., " FRANKLIN M. DIXON, D.D.S., "
 LOUIS JACK, D.D.S., " JAS. McMANUS, D.D.S., *Hartford.*

During the past session, 1869-70, the institution maintained its *cosmopolitan* reputation. The students in attendance upon the Lectures of the College being from every section of our own and foreign countries, viz.: United States, 60; Austria, 1; Canada, 3; Columbia, South America, 3; Cuba, 1; England, 1; Germany, 1; Norway, 1; Nova Scotia, 1; Prussia, 1; Russia, 2; Switzerland, 1. Total 74. To meet the requirement of the class, an additional operating-room was secured, and new chairs placed therein; facilities were also afforded for the preparation and administration of nitrous oxide and other anæsthetics.

In anticipation of the next session, two more rooms have been secured in the buildings occupied heretofore; one of these will be devoted exclusively to THE MUSEUM, which has been largely increased in extent and value this year, by donations from a public institution, professional friends, and purchases by individual members of the faculty. The collection of specimens and apparatus for illustrating the lectures are unsurpassed, if equalled, by any similar institution in the world.

THE DISPENSARY will consist of two large rooms, each fifty feet in length (lighted on all sides by twenty windows and a fine skylight), furnished with forty comfortable operating-chairs, arranged to command the best light, and affording unequalled opportunities for practice to the students.

The Dispensary and Laboratory will be open in September, 1870. During the month of October, *preliminary lectures* will be delivered *daily*, until the first of November, when the *regular session* of the College will commence and continue until the ensuing February. Three hours of each day will be devoted to the lectures, and four hours may be spent in actual practice, under the supervision of the Demonstrators. A large number of patients present themselves at the clinic.

Matriculation (paid but once).....	\$5.00
Tickets for theentire course, including the Demonstrators'..	100.00
Diploma.....	30.00
For further particulars, address	

J. H. McQUILLEN, DEAN.
 1112 Arch St., Philadelphia.

NEW YORK COLLEGE OF DENTISTRY.

FACULTY.

- WM. H. ALLEN, Emeritus Professor of the Institutes of Dentistry.
 FANEIUL D. WEISSE, M.D., Professor of Regional Anatomy,
 General Pathology, and Oral Surgery.
 FRANK ABBOTT, Professor of Operative Dentistry.
 ALEX. W. STEIN, M.D., Professor of Histology, Visceral Anatomy
 and Physiology.
 F. LEROY SATTERLEE, M.D., Professor of Chemistry, Metallurgy,
 and Therapeutics.
 C. A. WOODWARD, D.D.S., Professor of Mechanical Dentistry.
 D. W. WILLIAMSON, D.D.S., Demonstrator of Operative Dentistry.
 J. BOND LITTIG, D.D.S., Demonstrator of Mechanical Dentistry.

THE College was established for the purpose of educating men for the surgical specialty of Dentistry; to this end the curriculum provides for the acquirement of the scientific and chirurgical requirements of the specialty. The fundamental medical sciences and the theory of both Operative and Mechanical Dentistry are lectured upon during the Winter Session. Daily practice in the Infirmary and Laboratory, with operations at the chair and in the laboratory, by the Clinical Lecturers, afford an ample field for the student to perfect himself in the chirurgical or manual departments.

The Clinics at the chair and in the laboratory, given by the members of the Faculty and the Clinical Lecturers, are a feature in dental education peculiar to this institution.

"The advantages to the Student of such a mode of instruction, in acquiring a thorough education in the specialty, has been, it is believed, sufficiently demonstrated.

Ticket for the Course,..... \$150.00.

Matriculation, Demonstrator's and Diploma Fees included.

"Tickets for separate departments may be taken out at \$25 each, after paying the Matriculation fee of \$5."

For further information see College Announcement, or address the Dean of the Faculty.

STEPHEN A. MAIN,
 President,
 FRANK ABBOTT, DEAN,
 78 West 12 Street, New York.

DENTAL SCHOOL OF HARVARD UNIVERSITY.

THIRD SESSION, 1870-71.

FACULTY.

CHARLES WILLIAM ELIOT, LL.D., PRESIDENT.

NATHAN C. KEEP, M.D., D.M.D., Professor of Mechanical Dentistry.

OLIVER W. HOLMES, M.D., Professor of Anatomy and Physiology.

HENRY J. BIGELOW, M.D., Professor of Surgery and Clinical Surgery.

JOHN BACON, M.D., Professor of Chemistry.

THOS. B. HITCHCOCK, M.D., D.M.D., Prof. of Dental Pathology and Therapeutics.

GEORGE T. MOFFATT, M.D., D.M.D., Professor of Operative Dentistry.

THOMAS H. CHANDLER, A.M., Adjunct Professor of Mechanical Dentistry.

LUTHER D. SHEPARD, D.D.S., Adjunct Professor of Operative Dentistry.

NATHANIEL W. HAWES, Assistant Professor of Operative Dentistry.

EDWARD A. BOGUE, M.D., University Lecturer on Pathology and Therapeutics.

IRA A. SALMON, D.D.S., University Lecturer on Operative Dentistry.

SAMUEL F. HAM, D.M.D., Demonstrator of Mechanical Dentistry.

CHARLES B. PORTER, M.D., Demonstrator of Practical Anatomy.

THE DENTAL DEPARTMENT OF HARVARD UNIVERSITY

has been established to meet a want long felt by the dental profession of New England. It is located in BOSTON, in order to secure those advantages for infirmary and hospital practice which are to be found only in large cities. The infirmary which has been established in connection with the Massachusetts General Hospital remains open throughout the year, and offers to students unsurpassed facilities for acquiring practical knowledge and dexterity.

Qualifications for Graduation.

The Degree of Doctor of Dental Medicine (*Dentariæ Medicinæ Doctor*) may be conferred upon each candidate of adult age, of good moral character, who shall have pursued his professional studies three years under competent instructors and attended two full courses of Lectures in this institution; except that a certificate of attendance upon one course of Lectures in any respectable Dental or Medical College, or five years reputable practice, may be considered a substitute for the first course; provided such candidate maintain a thesis, and undergo an examination to the satisfaction of the Faculty, and convince the Professors of Operative and Mechanical Dentistry of his ability to meet satisfactorily the requirements of his art.

He must also deposit with the Dean, to be placed in the Museum of the college, a specimen of mechanical dentistry or of practical or pathological anatomy, prepared during the course under the eye of the instructor.

The regular lecture season will commence the first Wednesday in November, and continue four months.

Matriculation Fee..... \$5.00

Full Course of Lectures, including Demonstrators' Tickets.... 110.00

Graduation Fee..... 30.00

Students are invited, upon coming to the city, to call upon the Dean, at his office, No. 74 Boylston Street, who will give them all the information in his power For further particulars, address

N. C. KEEP, M.D., D.M.D., Dean of the Faculty.

PENNSYLVANIA COLLEGE
OF
DENTAL SURGERY.

The Fifth Annual Session, 1870-71.

T. L. BUCKINGHAM, D.D.S., Prof. of Chemistry.
 F. WILDMAN, M.D., D.D.S., Prof. of Mechanical Dentistry and Metallurgy.
 G. T. BARKER, D.D.S., Prof. of Dental Pathology and Therapeutics.
 JAMES TRUMAN, D.D.S., Prof. of Dental Histology and Operative Dentistry.
 JAMES TYSON, M.D., Prof. of Physiology and Microscopic Anatomy.
 J. EWING NEARS, M.D., Prof. of Anatomy and Surgery.
 J. M. BARSTOW, D.D.S., Demonstrator of Mechanical Dentistry.
 ELIHUR R. PETIT, D.D.S., Demonstrator of Operative Dentistry.

The regular Course will commence on the first Monday of November, and continue until the first of March ensuing. During September the Laboratory will be open, and Preliminary lectures will be delivered during October. A Clinical Lecture delivered every Saturday by one of the Professors. The most ample facilities are furnished for a thorough course of practical instruction.

Tickets for the Course, Demonstrators' Tickets included, \$100. Matriculation Fee, \$5. Diploma Fee, \$30.

Publishers of the "Dental Times."

For further information, address

T. L. BUCKINGHAM, DEAN,
1206 Vine Street, Philadelphia.

PURE GOLD FOIL,

MANUFACTURED BY

J. M. NEY & CO.,

HARTFORD, CONN.

SOFT, TOUGH AND MALLEABLE,

Can be made as ADHESIVE as desired by re-annealing. Receives our personal attention in refining.

For Sale at Dental Depots Generally.

THOMAS ON NITROUS OXIDE.

JUST ISSUED,

A TREATISE UPON NITROUS OXIDE GAS :

ITS MANUFACTURE, ADMINISTRATION, AND EFFECTS,

WITH

EXPLICIT DIRECTIONS FOR THE MANAGEMENT OF PATIENTS AND THE
EXTRACTION OF TEETH UNDER ITS INFLUENCE.

BY F. R. THOMAS, D.D.S.

A 12mo Volume of 122 Pages.

Price..... \$1.25.

PUBLISHED BY SAMUEL S. WHITE.

And for Sale at his Dental Depots.

DR. I. W. LYON'S

TOOTH TABLETS.

An Improved form of Tooth-Powder.

Unlike the Tooth-Powders commonly in use, this article is made into neat, portable cakes, divided into little tablets each of the right size for use, no liable to scatter or be wasted, and therefore very convenient, especially for Travelers. There is no occasion for dipping the brush into the box, thereby soiling what is not used, but a single tablet, enough for one brushing, may be broken off and put into the mouth; thus, several persons can use from the same box with perfect neatness and propriety.

It is made of the materials that were most approved of in the discussions of the American Dental Association at their Annual Convention, and is believed to be the best preparation yet produced for the teeth and gums. It has received the hearty approval of many leading dentists, to whom the formula has been submitted. The following certificates are submitted to those of the profession who have not had an opportunity of testing it.

CERTIFICATE OF THE DENTISTS.

This is to certify, that, being personally acquainted with I. W. Lyon, D.D. S., of New York City, and having been informed by him of the precise ingredients composing the Dentifrice known as "DR. I. W. LYON'S TOOTH TABLETS," and having ourselves used the same, we do unhesitatingly commend it to the public as the *best and most convenient Dentifrice now extant* :

W. H. Atkinson.....	New York City.	Chauncey P. Fitch..	New York City.
John Allen.....	" "	Wm. H. Allen.....	" "
Norman W. Kingsley...	" "	Alfred N. Allen.....	" "
Frank Abbott.....	" "	Wm. A. Bronson....	" "
Chas. E. Francis.....	" "	R. M. Streeter.....	" "
D. H. Goodwillie.....	" "	B. W. Franklin.....	" "
G. A. Mills.....	Brooklyn.	J. Taft.....	Cincinnati.
L. J. Wetherbee.....	Boston.	W. W. Allport.....	Chicago.
Ball & Fitch.....	" "	J. Ward Ellis.....	" "
I. A. Salmon.....	" "	A. Lawrence.....	Lowell.

Price, per dozen boxes..... \$3.50

A larger discount by the Gross. A liberal discount to the trade.

Each box contains 120 Tablets. Retail at 50 cents per box.

Or sent by mail for 65 cents.

Sold at all the Dental Depots, and by the Proprietor,

I. W. LYON, D. D. S.,

No. 11 Dey Street, New York.

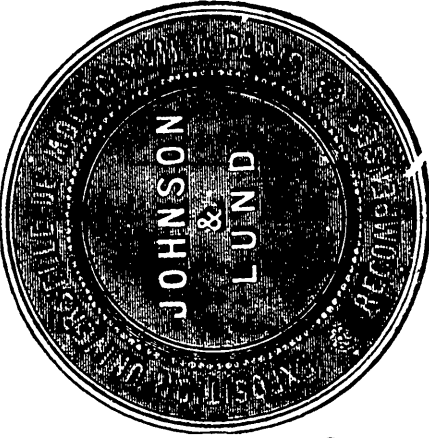
PRIZZIE MEDALS.

WORLD'S FAIR,
PRUSSIA, 1865.



AMERICAN INSTITUTE,
NEW YORK, 1867.

WORLD'S FAIR,
PARIS, 1867.



AWARDED
FOR
ARTIFICIAL TEETH,

TO

JOHNSON & LUND,

MANUFACTURERS AND IMPORTERS OF

DENTISTS' MATERIALS.

DEPOTS, 27 North, 7th Street Philadelphia.
74 and 76 Madison Street, Chicago.

Weston's Metal for Dental Purposes.

THOROUGHLY TESTED FOR THREE YEARS.

Warranted superior to anything of the kind ever offered to the profession. Produces as sharp and perfect casting as any copying or type metal known. With care and experience plates may be cast so light and smooth as entirely to dispense with the use of burs and scrapers. For accuracy of adaptation, is equal if not superior to any material in use.

It is tasteless and cleanly, and will positively keep its color in the mouth equal to the finest Gold or Platinum.

It is particularly adapted for full lower plates. For upper and lower parts of sets it has many decided advantages over the different cheap materials so much in use. In contact with aluminium there is no perceptible galvanic action or change of color. It receives a brilliant polish with very little labor.

Parties using this metal are not required to purchase a license. No additional apparatus required.

In 1 lb. packages..... \$6 00

In $\frac{1}{2}$ lb. packages..... 3.00

In $\frac{1}{4}$ lb. packages..... 2.00

Each package accompanied with full instructions. Manufactured and sold by

H. WESTON, Dentist,

Towanda, Pa.,

AND AT ALL THE PRINCIPAL DEPOTS.

Opinions of the Profession.

The following resolution was unanimously adopted at a regular meeting of the Bradford and Susquehanna Dental Association :

"That the members of this Society express themselves as more than pleased with the use of 'Weston's Metal,' in place of rubber, and feel themselves under lasting obligation to Dr. WESTON for enabling them to throw off the oppressive yoke of the Rubber Company."

216 North Sixth Street, St. Louis.

Dr. Weston :—Your metal is used and recommended by the Missouri Dental College to its students.

Respectfully yours,

HENRY S. CHASE,

Professor Operative and Surgical Dentistry.

OFFICE OF PERRINE & FRANKLIN, No. 115 W. 31st St.,

New York, March 1st, 1870.

Dr. H. Weston :

DEAR SIR :—We have given your metal a trial, and are pleased with it and the results. We believe for partial under cases it is superior to any other substance known to the profession. We can get a more perfect adaptation with it than with rubber, and all delicate points acting as supports, are stronger and more reliable than rubber. We have seen cases that have been in daily use since September last (now seven months ago), that show no evidences of oxidation—an important quality, and one that at first we had fears your metal did not possess.

The great facility with which your metal is manipulated into plates renders it an important adjunct to our list of materials out of which to construct dental plates, and other dental apparatus.

We shall take pleasure in recommending its use to our professional friends. You will please accept our thanks, and we doubt not you will receive the thanks of the profession for your successful efforts in bringing out so valuable a com-

pound, and the liberality with which you offer it to the profession is in striking contrast with past experience.

Yours truly,

GEO. H. PERRINE, D.D.S.
B. W. FRANKLIN.

(From American Journal Dental Science.)

We have tested this metal in the case of entire lower sets, and are inclined to the belief that it is superior to anything of the kind which has yet been brought to the notice of the profession. We advise a trial of it by those who object to rubber. There is no doubt but that it is stronger, and will keep its color better in the mouth than any of the cast plates in use.

(From Missonri Dental Journal, May number.)

We have been using this metal for the past six months or more, with much satisfaction. It is undoubtedly one of the best substitutes for Rubber of which we have any knowledge. It is tasteless—does not discolor, or has not in any of the cases which have come under our observation; is more lasting than Rubber, and a plate of this metal will be found to fit the mouth as nicely as a Rubber plate can be made to do.

(From Missouri Dental Journal, Nov., 1869.)

This metal has been considerably used in this city for making both upper and under dentures, and has given very great satisfaction.

(From the same, Dec. number.)

The cry, "What shall I do?" still comes to us, as some poor victim of the Rubber Co., who has been overlooked, is hunted up, and the strong arm of the law is raised to annihilate him. In reply, we say, try Aluminium—and Weston's Metal for partial or lower sets. We are induced to recommend Weston's Metal in preference to that known as Adamantine, (Moffit's Metal,) or the Walker's Excelsior Base, because, from the tests we have made of these bases, this seems to us to promise the best results.

Compared with Rubber, this is superior in point of strength and durability. The Weston Metal has thus far proved as tasteless as Rubber. Patients who have tried Rubber, and been obliged to give it up on account of its effect upon the mucous membranes, causing inflammation and even sloughing of the soft parts, are now wearing plates of Weston's Metal with perfect satisfaction. So far as we have been able to judge, Weston's Metal is not affected by the secretions found in the oral cavity. It does not materially change color. It may, with care, be cast almost as thin as an ordinary gold plate.

WESTON'S FLASKS—ESPECIALLY ADAPTED TO CASTING PLATES.

Being longer than the ordinary Flask, it gives more room for the reservoir, posterior to the plate, which is the whole secret of casting perfect plates. The Flask is closed with a spring steel clamp, and stands on feet to facilitate pouring the metal.

PRICE. \$1.00

T E CANADA MEDICAL JOURNAL

Issued monthly at \$3 a year, in advance.

EDITED BY

G.E. FENWICK, M.D., AND F. W. CAMPBELL, M.D., L.R.C.P.L.

CORRESPONDING EDITORS.

HONBLE. D. MCNEIL PARKER, M.D., EDIN., L.R.C.S.E.,

Member of the Legislative Council of Nova Scotia, Halifax, N.S.

W. CANNIFF, M. D., M.R.C.S., E., } AND { WILLIAM BAYARD, M.D.,
TORONTO, ONTARIO. } ST. JOHN, NEW BRUNSWICK.

Dentists will find much of interest and usefulness in the above Journal.

DAWSON BROS.

159 St. James st., Montreal.

H. C. CORFIELD,

Manufacturer of Porcelain Teeth.

Having removed to the commodious building, No. 37 North Tenth Street, one door above Filbert, we are now prepared to furnish the Profession **TEETH** of superior quality, and in great diversity of form and shade. They are fully equal to any manufactured, and at

Much Lower Prices than asked by other Manufacturers.

Our Vulcanite Teeth, Gum Sections and Plain, are all fitted with Double-Headed Pins, or Pins with a head on each end.

Our Upper Central Blocks have each Five (5) Double-headed Pins, and the Lower Central Blocks each Four (4).

We have a full and varied assortment of all kinds and styles of Teeth in use, embracing

Gum Blocks or Sections for Rubber Base.					
"	Single Teeth	"	"	"	"
Plain	"	"	"	"	Plate.
"	"	"	"	"	Rubber.

And being willing to share some portion of the profits with the profession, have concluded to offer them at the following prices, for cash only:

Plain Teeth \$1 00 per set of 14 Teeth.

Gum Teeth \$1 25 per set of 14 Teeth.

And by the quantity at such prices as may be agreed upon. We solicit trial of our teeth. Satisfaction guaranteed or the money refunded.

H. C. CORFIELD,
No. 37 North 10th St. above Filbert,
PHILADELPHIA.

RUBENCAME & BARKER,
Dental Manufacturers,

DEPOT: 825 ARCH STREET,

Philadelphia, Pa.

Gold Foil,
 Anchor Sections,
 Anchor Flasks,
 Enamelene,
 Gasometers,
 Dental Furniture,
 Instruments, Lathes.

RETAIL PRICES:

Gum Teeth, 16 cents each.

When ordered by the quantity, we will furnish them at the following prices for *cash only* :—

For \$25.00, 12 sets of 14 Gum Teeth, (168,) being a fraction less than 15c. each.

For \$50.00, 26 sets of 14 Gum Teeth, (364,) being a fraction less than 14c. each.

For \$100.00, 55 sets of 14 Gum Teeth, (770,) being a fraction less than 13c. each.

Plain Teeth, 10 cents each.

For \$25.00, 20 sets of 14 Plain Teeth, (280,) being a fraction less than 9c. each.

For 50.00, 42 sets of 14 Plain Teeth, (588,) being a fraction over 8½c. each.

For \$100.00, 89 sets of 14 Plain Teeth, (1,246,) being a fraction over 8c. each.

Assorted samples of Teeth will be furnished by mail, free of charge. These will enable the Dentist to decide as to the pattern best suited to any particular case, which can be ordered by the number on the back of sample.

Manufacturers of Rubencame & Barker's Gold Foil, Anchor Rubber, Anchor Flasks, Barker's Gasometer Mouth Piece and Hood.

(Patented May, 1870.)

TRY THE
EUREKA GOLD FILLING.

SOFT TOUGH AND ADHESIVE.

The superiority of this form of gold for filling is universally endorsed by the Profession as a better article than foil, it being tougher, softer, and at the same time adhesive. It is softer than the softest foil, and its adhesive qualities are perfect. The gold is chemically pure, and these essential qualities are produced solely by my principle of manufacture, whereby I preserve its crystalline structure unbroken and uniform. By its homogeneous condition I can guarantee its being uniform for

THE QUALITY CANNOT VARY.

It is sold in a very convenient form for manipulation, and each box contains a description of the gold and how to use it. For sale at all the Dental Depots.

PRICE, \$5 PER 1-8 OZ., \$38 PER OZ.

Agents and travellers will receive a liberal discount.

IT CANNOT BE MADE HARSH BY ANNEALING.

GEORGE J. PACK & CO.,

Manufacturers,

508 Broome Street, New York.

N. B.—Also manufacturers of adhesive and non-adhesive gold foils.

EUGENE DOHERTY,

PROPRIETOR OF

WILLIAMSBURG INDIA RUBBER WORKS

364 FIRST STREET, BROOKLYN, E. D.

MANUFACTURER OF

DENTAL RUBBER, GUTTA PERCHA, STEAMPACKING, BELTING, &c.

The superiority of Doherty's Rubber is so well known that commendation is unnecessary. To be had in all the Dental Depots throughout the States.

RETAIL PRICES.

Dental Rubber, No. 1..	\$2 50 per pound.	Flexible Rubber.....	\$2 75 per pound.
" " No. 2...	2 50 "	Gutta Percha,.....	2 00 "
Black Rubber,.....	2 50 "		

DENTISTS MICROSCOPES.

A RARE CHANCE.

With a view to encourage Microscopical studies among Dentists in Canada, the undersigned has made arrangements for direct importation from England, of superior microscopes, which he will supply the Canadian profession at *wholesale prices*.

No. 1. a very fine Inst.—\$40 Retail price \$60 and \$65.
 No. 2. " 35 " "
 No. 3. " 20 " "

W. GEO. BEERS

WANTED AN ASSISTANT.

Must understand Mechanical Dentistry well, and be able to perform the various operations in Dental Surgery, of good character and address. Apply to

A. BERNARD, L.D.S.,

564 CRAIG STREET,

MONTREAL.

CHARLES ABBEY & SONS,

MANUFACTURERS OF

DENTISTS'

FINE GOLD FOIL,

No. 230 PEAR STREET,

PHILADELPHIA, PENNSYLVANIA.

OLD FASHIONED, (SOFT OR NON-ADHESIVE,)

FINE GOLD FOIL,

ADHESIVE FINE GOLD FOIL.

For nearly fifty years our OLD-FASHIONED GOLD FOIL has been before the Profession, and has received the unqualified approbation of most of the best Dentists. Our

ADHESIVE GOLD FOIL

While possessing all the properties peculiar to that particular article, is free from the objectionable harshness or stiffness that characterizes so much of the Gold Foil that is offered as Adhesive. All our Gold Foil (Old-Fashioned and Adhesive.)

Is Made From Absolutely Pure Gold,

Prepared with great care by ourselves, and warranted to be as represented.

Free from Alloy or Impurities of any Kind.

FOR SALE

AT THE PRINCIPAL DENTAL DEPOTS.

OR ORDERS MAY BE SENT DIRECT TO US.



ARTIFICIAL TEETH.

A GOLD MEDAL,
THE FIRST PREMIUM, AWARDED at the PARIS EXPOSITION.

MORE PREMIUMS!

AT THE FAIR of the AMERICAN INSTITUTE, NEW YORK, OCTOBER, 1869,
THE FIRST PREMIUM,

A MEDAL & DIPLOMA,

Was Awarded to us for Improvement in Artificial Teeth.

A GOLD MEDAL

Was Awarded to us by the FAIR of the MARYLAND INSTITUTE, BALTIMORE,
Exhibition of November, 1869,

FOR THE BEST ARTIFICIAL TEETH.

These Premiums were awarded for Improvements over all Teeth previously made, either by ourselves or others, and not merely for superiority over those with which they were in competition at the fairs.

The especial attention of the profession is requested to these Improvements, which were recognized by very able Committees as obviating the greatest remaining defects in Artificial Teeth for Rubber Work.

Of this Improvement the Committee of the American Institute say:

"In regard to the shape and insertion of the pin in the body of the teeth now manufactured by S. S. White, the improvement is manifestly great over those of any other manufacturer known to us."

SAMUEL S. WHITE,

PHILADELPHIA, NEW YORK, BOSTON, and CHICAGO.