

School-Children's
TEETH

THEIR
Universally Unhealthy
AND
Neglected Condition

BY
J. G. ADAMS, L.D.S.

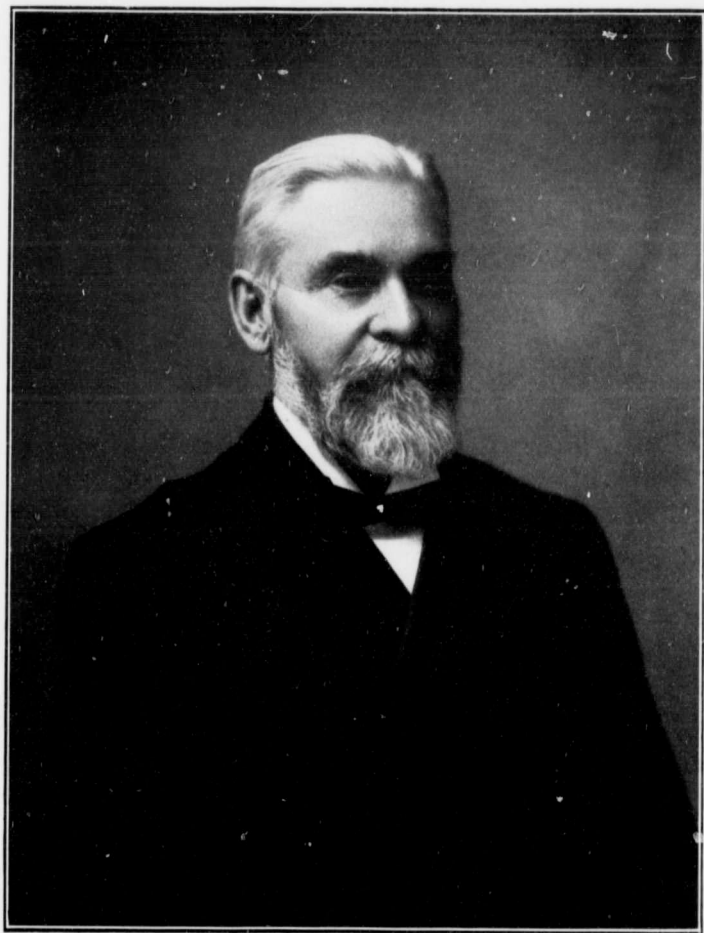
TORONTO, CANADA.

Price 25 cents.

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By the kind permission of some officials of the Royal Dental College I have made cuts from a work in their library, published on Orthodontia: "The regulation of teeth," by Edward H. Angle, M.D., D.D.S., president of the American Society of Orthodontists. These cuts, as you will see, show the great improvement he has made, not only in the appearance of his patients, but also in their power to thoroughly masticate food.

The cuts on pages 52 and 53 were taken from a work by Dr. Black, an Edinburgh physician.



J. G. ADAMS, L.D.S.

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School Children's Teeth

THEIR
UNIVERSALLY UNHEALTHY
AND
NEGLECTED CONDITION.

THE ONLY PRACTICAL SOLUTION :

Dental Public School Inspection

AND
HOSPITALS FOR THE POOR.

BY
J. G. ADAMS, L.D.S.

TORONTO, CANADA.

1896 and 1912

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PREFACE

The object of the writer in publishing this book is three fold.

1. To awaken Christian people everywhere to the crying need of making necessary dental hospital provision for the care of the teeth of their poor.

2. To give children in general a chance to have their teeth saved, with as little suffering and expense as possible.

3. To improve the health of the school children and the unsanitary condition of the schools. The object of the dentist should be to prevent suffering rather than to relieve it.

The publishing and circulation of this work has produced great good wherever copies of it have gone during the past sixteen years, since first published, May 11th, 1896.

J. G. ADAMS, L.D.S.

Jan. 1st, 1912.

SCHOOL - CHILDREN'S TEETH :

Their Universally Unhealthy and
Neglected Condition.

by

J. G. ADAMS, L. D. S.

TORONTO

CHAPTER I.



A FEW WORDS to parents and others who are interested in children: In the closing years of this nineteenth century I am sure you do not wish to be kept in ignorance of any danger that threatens the health and prospects of the rising generation. Moreover, I am sure you do not believe in that old adage:

“Where ignorance is bliss, 'tis folly to be wise.”

I therefore wish to lay before you some facts which I have gathered from **experience and personal observation and investigation** in reference to the sad change in the condition of children's **permanent** teeth of the present day. To my mind there is no subject that should be of more interest to you than this, whether viewed from a **parental, sanitary, educational, scientific** or **humane** standpoint; it is one that is **thrilling** with interest.

On this subject very little has been written; but the universally unhealthy and neglected condition of children's teeth is such that silence on my part, knowing their condition, as I do, would be criminal;

for very few parents are aware of the fact that their children's permanent teeth are decaying, as they suppose that the teeth that are aching are their **first** teeth. But if they could see their condition, as I have, they would be alarmed, and would, I think, do something to prevent it. For many years, in addition to caring for the teeth of the children in my regular practice, I have, with the aid of assistants, carried on Dental Hospital work among the children of the poor of Toronto, filling the teeth **free** for as many of such children as I could gather in. Besides this, I have examined the teeth of large numbers of children in the public schools of the leading cities of Canada, and of some of the American city schools, including the largest German school on the continent. I have furthermore examined the teeth of the Indian tribes on the Georgian Bay, and of hundreds of children just out from England, besides a number from Africa, Syria, Russia and Japan. The examination of so many thousands of children, comprising those of different nationalities, has given me an **exceptional opportunity** of noting the **condition** and the **change** that is taking place in their teeth. I shall not here touch upon the cause, but shall confine myself to the condition, as I find it, and to the only present practical remedy.

Soft, Chalky Teeth.

I find that children's teeth decay at a much earlier period than they did formerly, and that the quality of the teeth is so much inferior that, unless they are filled as soon as they begin to decay and while the cavities are small, they are soon past all hope of being saved. I am speaking of the permanent teeth; not only of the sixth-year molars, but also of the twelfth-year molars, bicuspid and su-

terior incisors which now very frequently begin to decay within a year or two after being erupted. I have examined the teeth of a large number of adults from fifty to seventy years of age, who, like myself, have first-class sets of teeth, far better now than **ninety-five per cent.** of the children of to-day. In every city I visited I found the teeth of the children in the same neglected condition. Though almost every child had teeth requiring to be filled, there were not **five per cent.** who had any filling done. I found only one child whose teeth had been filled at the right time; the rest had been neglected until they were very far gone and were hardly worth being filled, showing that their parents were not systematic in attending to them, but only did so when the children had suffered very much. I did not find, in the schools, **three per cent.** of the children with as good teeth as I myself have at fifty-seven years of age.

In every kindergarten school I examined I found many of the children with from two to four of their permanent teeth decayed, while mine, that I got at their age are perfectly sound. I cannot, in words, picture the exceedingly unhealthy condition of the teeth and mouths of a large percentage of the children in the various schools I examined. Approximately from **one to five per cent.** of the children had sound sets of teeth; **fifteen per cent.** had teeth fairly good, only some of them requiring to be filled; about **fifty per cent.** had many teeth decayed, some of which were so very far advanced as to make it difficult to save them, as they would require to be treated for days or weeks, and that heathenish operation, the destroying of the nerve pulp, performed. This should never have to be performed on a child, as the opening at the apex of the root of a

child's tooth is much larger than that of an adult, and will allow the arsenic, or other devitalizing poison used, to pass through and give much trouble. This, however, is not the most serious reason. In destroying the nerve, to relieve pain, the artery and blood vessel is also destroyed, therefore the tooth receives no further nourishment from that source, and becomes a dead tooth, losing its life-like appearance, and with less power to withstand the heavy strain put on it in mastication. And yet, what can the dentist do when the parents bring their children in such a neglected condition? He has either to destroy the nerve or extract the permanent tooth, which operation is a still more cruel and barbarous thing to do. About **thirty** per cent. of the children I found in a still more neglected condition; the teeth and mouths of many of them were so disgusting that no dentist would think of working for them until their mouths had been disinfected. Many of the children had from eight to twenty permanent teeth in various stages of decay; large numbers of them were dead teeth, mere shells, filled with decomposing food; other teeth were abscessed and the gums covered with vile, disgusting pus, which in many cases was very copious.

How shall I describe the furred condition of the tongue and the foul gases emitted from the mouths of such children, which were veritable hotbeds for every species of bacteria, having all the elements necessary for germination—heat, moisture, decomposing food and teeth, together with the foul gases arising from them and the stomach! What better conditions could bacteria have? Our health authorities are very careful about having all bones and refuse removed from yards to prevent the air from being polluted; and yet school children by the tens

of thousands are compelled every day to bring their vile, dead, rotten "bones" to school to contaminate the air of the overcrowded rooms and spread disease among the children whose parents have been careful about their teeth. When sickness breaks out in the school (and it is often doing so) the health officer, at great expense, searches the buildings, drains and closets to find the cause, not suspecting that it is often in the children themselves, who have been weakened by **slow poison**.

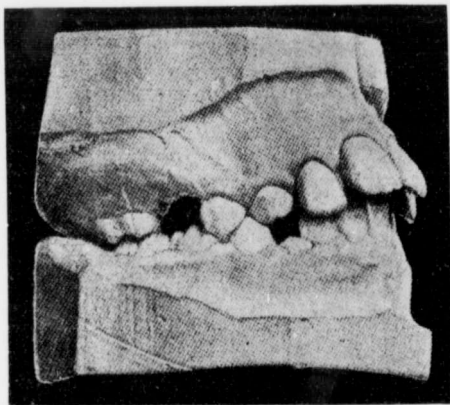
A Criminal Act.

I consider it a crime to compel teachers and children who take good care of their teeth to sit in the same room with such children. Remember, many of these were not poor children whose parents were not able to get their teeth filled, but children whose parents were in comfortable circumstances and were both willing and able to care for them; but, unfortunately, they were not aware that their children's teeth were in such a condition, but supposed that the teeth that were decaying were their **first** teeth, and that Nature was helping to get rid of them by decay, in order that **new teeth** might take their place.

In every school I examined I found children whose permanent teeth had forced the roots of the deciduous teeth out through the alveolar process, and the rough, jagged points had lacerated and worn away the cheeks and lips, making a hole, in many cases, large enough to hold a walnut. Cancers often result from such laceration! I found many of the children who for months had not been able to masticate solid food, and their pinched, half-starved faces told how they were being injured.

Mr. Levi Clark, principal of one of our schools, said, at a public meeting in the interests of the

children, that the result of the examination of the children's teeth in his school was a revelation to him, and that he could not see how it was possible for the children to attend school at all, with their teeth in such a shocking condition. But he said they were so ambitious to get their certificates that they would continue at their studies even while suffering



This cut and profile represents cases of thumb-sucking. The constant habit of biting the lips and sucking the tongue often produces this effect. Parents noticing any of these habits in their children should correct it at once. The longer they are allowed to indulge in it the harder it will be to break it.

great pain, and would come to school with their faces swollen and covered with tears, but that at last they were compelled to go home.

The examination of 25,000 city school children, some in Canada and some in the United States, shows that one-half of them have suffered so much from abscessed teeth at night that they could not

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sleep; one-fourth of the children were not able to attend school, some for days and many for weeks; and that out of these 25,000 children only 2,200 had teeth filled, though most of them belonged to the well-to-do class of our cities. There are more than 100,000 permanent teeth in the mouths of the



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school children, in Toronto alone, that are going to destruction without any effort on the part of their parents to save them. Who can estimate the unnecessary loss sustained or the suffering and ill health endured by these children, and the millions of others on this continent who are in like condition? 'T's a

sum that cannot be computed, for the effects will not end with their death, for those who live long enough to marry will hand their nervous, weakened condition down to their children, and the world will be populated with nervous dyspeptics!

Unsanitary Condition of the Schools.

I shall now point out some of the ways by which the children whose teeth have been neglected are injured, and then show how the bad condition of their teeth affects the health of the teachers and of the other children in the school whose teeth are kept in good condition. First, these neglected children suffer excruciating pain with toothache and neuralgia, often for weeks at a time, so that they cannot eat, sleep or study, and consequently become nervous and irritable. This prevents them from succeeding with their studies, and they soon fall behind their classes and becoming discouraged, hence losing much of their education. In the second place, these children (not being able to properly masticate their food, which is consequently not thoroughly mixed with the saliva) bolt down their food in coarse chunks which irritates the stomach and bowels, causing indigestion, dyspepsia and diarrhoea. An eminent English doctor, writing on this subject, says that he considers that the rapid increase of intestinal troubles among the children in England, so often ending in death, is directly attributable to the unhealthy condition of their teeth.

In the June number of an English quarterly magazine, published by C. Ash & Son, I found an interesting paper **on the decay of the teeth** in the National Schools of Germany, written by Dr. C. Rose, of Freiburg, Baden, and read at a meeting held in Vienna, in which he shows that the chil-

dren's teeth there, also, are deteriorating very fast, and that very little attention is given to their preservation. In one district, out of 6,300 school children examined by him ninety-eight per cent. had decayed permanent teeth, and yet out of that number only twenty-seven children had teeth filled. He further says that in various places which during the last few years had been heavily scourged with diphtheria epidemics, it struck him that the children, in their thirteenth and fourteenth years, possessed exceptionally good teeth in comparison with those of more tender years. This fact, he says, can only be explained in this way: That the children with bad teeth had to a greater extent succumbed to severe forms of diphtheria, inflammation of the lungs, and other infectious diseases. He says that Miller and others, it is known, have shown that most of the disease-bearing fungi appear at times in the unclean mouths of healthy people.

In his opinion, during an epidemic, the diphtheretic fungus will penetrate for a time to the mouths of nearly all the children in a school. He says: "In a clean, well-cared-for mouth, it does not find favorable conditions for its development, but grows vigorously in and near the roots of the teeth of a badly-tended mouth. The most effective sanitary measure in the treatment of diphtheria, during the disease and before, consists of the frequent thorough cleansing of the mouth and throat. A mouth with good teeth and tense gums can naturally be cleaned by rinsing, etc., much more easily than one with diseased roots and loose gums. **The most important preventive sanitary measure on the appearance of any epidemic is the most careful attention to the mouth.**"

His investigations reached the figures of over 13,-

000 school children. "The results of these investigations," he says, "should be sufficient to convince the German Governments of the necessity of dental hygienic measures in the National Schools. This is a duty the Governments cannot shirk."

I am pleased to be able to give you these extracts from his paper, as they so fully correspond with my own experience in this country, and add greater interest to this subject. Some people say: "We look after our own children's teeth, let others do the same; if they do not do so, let them suffer; it will not affect us." My reply is. Do not be too sure; wait until I have finished this paper, and see if I have not shown that the teachers and the other children in the school are being injured by those children whose teeth have been neglected. Your children have to sit in the same room, side by side with them, inhale the same air, and drink from the same cup as these children do who are in the large majority.

Improve the Air of the School Rooms.

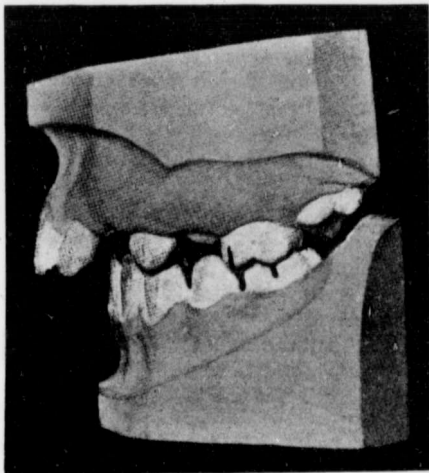
How to thoroughly ventilate the over-crowded school-rooms is a **vital** question, as the health of the children depends greatly on its being successfully done. The way most school-rooms are constructed makes it impossible to properly ventilate them, particularly during the six months when a fire is required, and when economy of fuel and fear of draughts compel the windows to be closed. If you could find a room where all the children were clean, and their teeth and mouths in a healthy condition, still the air would soon become more or less foul. But such favorable conditions cannot be found; for in every school-room there are large numbers of children whose mouths are in the diseased condition

I have described, giving out foul gases, than which nothing can be more vile. This is not all. These children, as I have shown, are not able to masticate their food properly, the result being indigestion, dyspepsia, and alimeentary troubles, causing a superabundant quantity and quality of vile gases, generated from the unmasticated, undigested, decomposing foods in the stomach of so many of these children. These gases are constantly passing from them to foul the air, which your children and the teachers have to breathe for six hours a day; and remember that this air is heated up and breathed over and over again, and is always getting viler as the hours pass by. Allow me, on this subject, to again refer to Dr. Rose's admirable paper, in which he says: "The first sanitary care, as is known, in the construction of a new school building at the present day, is devoted to the quesetion of fresh and wholesome air." "Every dentist," he says, "knows the shocking odors which a single person with an unclean condition of the mouth is capable of exhaling. Now imagine fifty to eighty school children exhaling such pestilential odors, packed together in a more or less small room with defective ventilation, and you have the condition as it exists in many of the German village schools which I examined." He further says that he has often pitied the teachers who, daily, for six hours are compelled to inhale this pestiferous air.

Let me here say, that his description of the air in the German schools is not worse than I have found it in some of the city schools I have visited. So much for the air your children have to breathe for six hours a day during five days of the week; but that is not all the poison they receive from these children.

Danger from the Drinking Cups and Chewing Gum.

These children of whom I have been speaking are more or less feverish, and often go to the drinking-cup to quench their thirst. On the edge of the cup they leave more or less of this poisonous pus. Your children, not suspecting any danger, follow



This cut shows how the upper teeth protrude far beyond the under teeth, forcing the lips forward and upward, as seen in the profiles of these young girls. You can see that it is impossible for them to bite with their front teeth, or properly masticate their food. There are only two of the upper teeth that articulate with the under teeth, as you see.

them, and put the same edge of the cup to their lips. If they happen (and they often do) to have a cold-sore, crack or pimple on their lips, there is danger of inoculation; but, if there was no danger from blood-poisoning, the thought of your children

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drinking out of the same cup that these children have fouled is disgusting enough. But this is not all the danger to which your children are exposed, for you know the universal custom children have of chewing gum. Little children often lend their gum to their playmates, and it sometimes passes to the



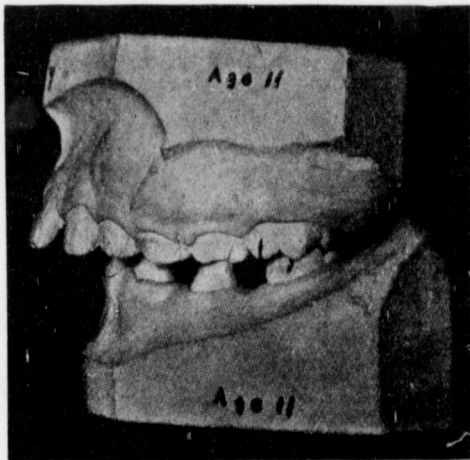
MOUTH BREATHERS.

These young girls have been troubled with enlarged tonsils and adenoids, which have closed up the nasal passages, thus forcing them to breathe through the mouth. The cut on opposite page shows how the constant pressure of the tongue against the front part of the upper jaw has gradually forced it and the front teeth out of shape, thus disarranging all the teeth in the mouth.

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mouths of several children, where it is crunched into these vile, hollow, abscessed teeth, and mixed with the poisonous pus. The thought of your clean, innocent little children taking this gum and placing

it in their mouths is sickening indeed, and yet this is being done every day all over this continent. When visiting the schools in the Eastern cities I noticed, just before going into one of them, that a number of the children outside were chewing gum. After I had examined the teeth of the children in this school, the principal asked me to say a few



This cut shows another case of disfigurement as the result of enlarged tonsils, and the impossibility of thoroughly masticated food.

words to the children on the importance of taking good care of their teeth, and in speaking to them I asked how many of them were in the habit of chewing gum. Immediately the hand of every child went up, showing how prevalent is this custom.

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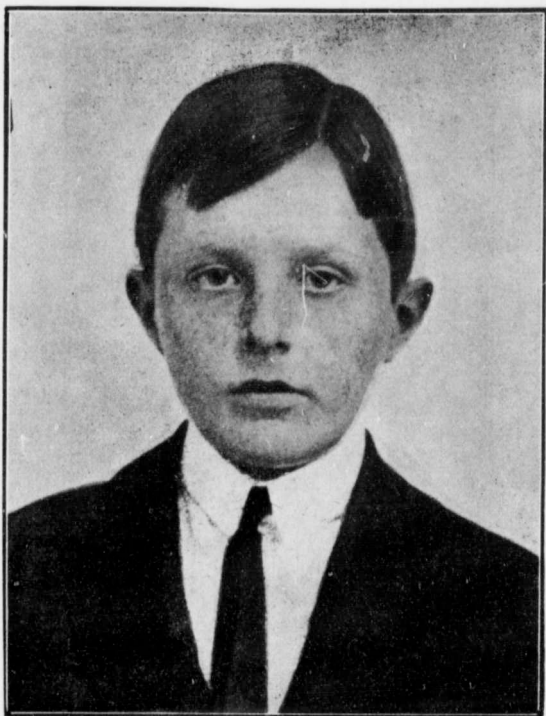
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BEFORE REGULATION.

Note a weakness in the facial expression of this boy. He shows lack of energy. He is not the boy he would have been had he been able to breathe properly. Note the great change in him on following page.



AFTER REGULATION.

Note the great improvement as the result of the removal of the tonsils and regulation of his teeth. He now breathes properly and is able to masticate his food. He now shows self reliance, which before he lacked.

Another Source of Danger.**Syphillis and Stomatitus in the Schools.**

In addition to the dangers I have already pointed out to which your children are in danger in the schools, there are cases of children whose mouths are literally rotten with those loathsome contagious diseases, Syphillis and Stomatitus. Physicians in Toronto to whom I have shown such children, have pronounced it a crime that they should be allowed in the schools to spread the disease among the other children through the use of the drinking cups. When examining the teeth of some school children, in one of the Eastern cities, the principal of the school remarked to me, "that boy is syphillitic." I replied, "yes, and do you know the other children of the school are in danger of taking the disease from him by drinking from the cup he has used." "No, surely not," he exclaimed, "it is horrible to think of it." I told him to look up any medical work and he would see that what I said was correct. Such children are to be found in the schools of every city.

Many Cases in Toronto Schools.

I have found many such diseased cases in our Toronto schools.

When taking a couple of boys from one of our Toronto schools to show them to a physician, the largest boy, pointing to the other said, "Him and me are chums." I replied, "Yes, I know you are." Looking up in surprise, he asked me how I knew they were chums. I said, "by the condition of your mouths, you are diseased alike, you have been drinking from the same cup and have been chewing each other's gum. You had the disease first and that boy has taken it from you. I know that is the case, for he has only lately come to the city from the coun-

try, and was all right until he met you." He admitted I was right, and said they did drink from the same cup and lent each other their gum when they got tired chewing it.

When I discovered any children thus diseased, I sent them to the Medical Dispensary or to a physician for treatment, and to be isolated until cured. However, it was only a comparatively few out of the many that I discovered, as they were scattered through the different schools of the city.

Surely the facts thus far given should convince you as a parent, that it does make a great difference to you whether your neighbors take good care of their children's teeth or not.

**A Most Unique History of a Neglected Tooth that,
Through the Mistaken Diagnosis of the City
Medical Health Officer, Cost the Tax-
payers of Toronto \$364.**



FRED GEE.

The history of this tooth is one of interest for several reasons: First, because of the serious mistake made by the city's Medical Health Officer; second, because of the legal action it incurred and the decision given; third, for the effect on the owner of the tooth; fourth, for the hundreds of dollars it cost the taxpayers of the city in which it trans-

pired; and last, but not least, for the practical lessons that may be learned from its history.

This noted tooth was a right inferior, permanent molar, belonging to an eight-year-old boy named Fred Gee, who lived with his parents on King St. in the city of Toronto. Fred was often troubled with this molar, particularly at night after going to bed, which is generally the case with a person troubled with an abscessed tooth. His mother tried all the customary remedies to give him relief, expecting that the tooth would soon drop out, never suspecting that it was a permanent tooth. Instead of its getting better, it got worse; then the family physician was called in. He prescribed a linseed poultice to be applied on the face; this caused the abscess, which was forming, to point on the outside of the face. A day or two after, the physician called and lanced it, leaving the tooth, which was the cause of the trouble, still in the mouth, the result being that instead of Fred's face healing up, the pus continued to discharge. The children of the school thought that Fred had some contagious disease and objected to sitting in the same room with him. The parents of these children complained too about it, and Fred was sent home from school and not allowed to return.

The City Medical Health Officer Diagnosis It as a Case of Tuberculosis.

As the teacher refused to allow Fred to return to school, his mother took him to the City Medical Health Officer, who diagnosed it as a case of tuberculosis, and advised his mother to keep him out of doors in the sunshine and fresh air as much as possible. However, this did not cure him, instead of getting better he actually got worse and for over

a year and a half the pus continued to discharge on his face, leaving poor Fred in a sadly run down condition.

Dr. John Noble Fred's Rescuer.

Providentially for poor Fred, Dr. John Noble, afterward school trustee and alderman, was called in to see one of the other children that was sick, and his attention was called to Fred's case, and he was told the pus had been discharging for more than a year, that Fred was not allowed to attend school on that account, and that the other physicians had frequently told his mother that it would be dangerous to heal the abscess, as it would be almost sure to cause blood poisoning and perhaps end in the death of the child.

Let me stop here to say that this is a very common belief, even among well-educated people as well as among some of the old-time physicians, as it was in this case; and for that reason abscesses are allowed to continue to discharge for years. I am constantly meeting with such cases, where young girls and boys are being disfigured for life from the effects of having their faces poulticed, and the abscesses left to discharge for years—cases where young women have had to wear handkerchiefs on their faces for years, to cover the disgusting appearance of the abscesses. I have a very serious case at the time of writing this,—a case where a young woman's health is being wrecked, through having thus been neglected, until a large portion of the jaw has become diseased. If any person doubts the frequency or seriousness of such neglected abscesses, I would refer them to any dentist who has had a lengthened experience in his profession. In a city where there are many experienced dentists, it seems to me strange that phy-

sicians do not oftener call in one of these dentists for consultation. It could not possibly do any harm, and would often save their patients unnecessary suffering and disfigurement, as alveolar abscesses are very often mistaken for tuberculous troubles, with which they sometimes become complicated.

Last winter a poor woman brought her daughter into the Dental Hospital to have a tooth filled. I found an abscess on the side of her face, which was disfiguring her very much. I asked her mother how long it had been discharging. She said for four years. I asked why she allowed her child to continue so long in such a diseased condition, as it was not only disfiguring her, but was injuring her health. She said that every person to whom she had shown the abscess, had told her that it would be sure to cause blood-poisoning if it were healed up. The girl herself said that the odor from it was something awful, and that she could hardly bear it herself, and yet, through ignorance, she had been compelled night and day for four years to inhale this foul and poisonous gas. I examined her teeth and found that a dead root was the cause of the trouble, and so, removed it, and in a short time the discharge ceased, and her face healed up. The simple remedy is to take out the dead tooth or root that is the cause of the abscess, and the trouble (if not complicated by necrosis of the jaw, which very often happens when neglected too long), will soon cease, as I will show was the case with Fred.

But to return to my story: We left Fred with Dr. Noble, the new physician, who was diagnosing his case. He found, first, that there was an abscess on the face, discharging pus, just below the inferior maxillary bone, and that in the mouth there was a

badly decayed inferior molar tooth, with the nerve pulp dead, close by the fistulous opening on the face; second, that the tooth had often ached at night (not in the daytime), showing that the pain was not caused by a live, exposed nerve pulp; third, that his face had been poulticed to relieve the pain in the tooth, and that as soon as the poultice had drawn the abscess to a head, and it had been lanced, the pain ceased, and though the tooth had remained in the jaw over a year, yet, as the pus had continued to discharge, the tooth had given him no more pain. So he decided that the tooth was the cause of the abscess, and consequently extracted it. One of the roots was black, rough and much absorbed, showing clearly that he had correctly diagnosed the case. The after-results also prove this, for in two weeks after it had been removed the pus ceased to flow, and Fred's face healed up. You will no doubt think that as Fred's face is now healed we have come to the end of this history; but not so. Though Dr. Noble gave Fred a certificate to go to school, saying that he was all right and that he had no contagious disease, yet the certificate was not accepted, and Fred was again sent home broken-hearted, the result being that his father entered an action against the Public School Board for damages, claiming that the child was being deprived of his education, and that his business, too, was being injured by it being reported at the school that Fred had a contagious disease which deterred his customers from buying groceries at his store. The School Board engaged E. B. Osler to defend the suit, which came before a learned judge. The defence claimed that it was dangerous to the other children in the school to have Fred there with an abscess discharging pus on his face. A number of physicians were called on for the de-

fence. They and the Medical Health Officer said it was a case of tuberculosis, and that it was not safe for him to be in the school, as there was a possibility that some of the pus might come in contact with a cut or scratch on the person of some of the other children, and thus cause blood-poisoning. One doctor said that some of the pus might drop on the floor, and, when dried, that some of the germs in it might be circulated in the air of the room, and thus come in contact with a cut or scratch on some of the children.

Dr. Noble, who had healed Fred's face, claimed that it was strictly a case of alveolar abscess caused by the dead tooth, the proof of which was shown by the fact that though the abscess had discharged for over a year from the time the former doctor had lanced it, yet as soon as the tooth was extracted it immediately healed up. Strange to say, though Fred stood before them, perfectly healed, though badly scarred, the Medical Health Officer and the other physicians insisted that it was a case of tuberculosis. The result was that his Honor the Judge, without sending the case to the jury, gave judgments in favor of the School Board, saying the Board did right in suspending the child in the interest of the other children of the school, yet strange to say, at the same time the judge gave Fred a permit to go back to school on Dr. Noble's certificate. I leave it for the readers to make their own comments on the justice of the decision by the judge. This noted trial lasted two days. The costs of the court, \$364.00, was assessed to Fred's father, and to collect which the bailiff was sent to seize the household and grocery effects; but, as these belonged to Fred's mother, he could not take them. The result was that the taxpayers of the city paid

the costs. Of course the taxpayers of Toronto never think anything of a small bill like that, as they are so used to paying large ones!

Now, I think you will admit that the history of this neglected tooth is unique indeed. My object in giving it is, that we may draw lessons from it which, I trust, will be of use to the children of our schools, and will prove to you **that it does make a great difference** to you whether your neighbors take care of their children's teeth or not. My first point is this: If it was dangerous (and it was settled by law that it was) to have a child sitting in the school with an abscess discharging pus on the outside of his face, though it was where it could be seen and avoided, how much greater must be the danger your children, and all the children of this Dominion of Canada are in, when I tell you that in every school there are many children, not with one abscess, but with many abscesses, not on the outside of the face, where they can be seen and avoided, like Fred's, but concealed in the mouths of outwardly clean and well-dressed children, like your own. In the mouths of these children I have seen large quantities of vile, poisonous pus, from their dead, abscessed teeth and roots, which is continually gathering and discharging in their mouths every time they take cold. This they frequently spit on the floor, to dry up and mix with the air of the room for your children to breathe. There are thousands of such children in the well-to-do schools in Toronto, the condition of whose teeth is a disgrace to a city claiming to be civilized!

The principal of one of our best schools told me that there were many such children in his school belonging to wealthy families, but that he did not dare to say anything to them for fear of giving offence, adding, however, that he always tried to

keep as far from them as possible, as their breath was so vile. Other teachers have told me the same



MR. FRED GEE.
28 years of age.

thing, and thanked me for the effort I was making to bring about a reform; so you see it is not from

the condition of the children of the poor only that your children are in danger.

This cut of Mr. Fred Gee, now twenty-eight years of age, speaks for itself. He is a living witness to the serious blunder made by the City Medical Health Officer in his diagnosis of his case. One might make some little excuse for his first mistake, but there can be no excuse whatever for his persistent statement before that court as to its being a case of tuberculosis, and that, too, in the face of what Dr. Noble said as to Fred's cure by the simple extraction of an abscessed tooth. Fred is a living witness also to the unjust decision by the judge, he refusing to allow the case to go to the jury when requested so to do by Mr. Duvernet, Mr. Gee's lawyer. Is it any wonder that Mr. Fred Gee often feels angry when he thinks of the heavy loss he has sustained in education by being forced to remain out of school that year and a half. He said he can never get as good a position, or as good wages as he could if he had a better education.

CHAPTER III.

Many Cases of Mistaken Diagnosis by Toronto Physicians.

Physicians Should Know More About the Teeth and the Ill Effects of Their Neglect on Their Patients.

The following additional cases of mistaken diagnosis by eminent physicians occurring in a University city like Toronto, proves the aptness of the above heading. In recording the history of these cases I do not do it in an unkindly spirit, but with the hope: 1st, of convincing physicians of the importance of

taking the teeth into consideration in their diagnosis of the various cases of run down and ill health. 2nd, that the reading of these cases may be a warning to parents not to neglect their children's teeth until they get in such a condition. 3rd, that teachers and nurses meeting with such cases, may understand the cause, and know what advice to give.

If I accomplish these objects in any measure I shall feel I have not lived in vain. At seventy-three years of age I cannot have many years left to work for suffering humanity. Though I have been forty years persistently working for the improvement of children's teeth I do not feel satisfied with the results. However, though I am now past active work at the dental chair, yet I hope to accomplish more during the short time left than I have done in the many years in the past. Through the medium of my books that will go into homes everywhere, I hope to set parents, dentists and Christian people, to work, caring for children's teeth.

The Mistake of a Medical College Clinical Professor at the General Hospital.

In the year 1897 Lizzie Davis came to the Dental Hospital suffering with a tumorous growth on her face, caused by an abscessed tooth similar to that of Fred's. She told me that it had been discharging for two years, and that she had been to the General Hospital, where the surgeon in charge placed her upon an operating table, and then having explained to the students (by way of a clinic) all about the tumor, he cut it off and said that it would not return. However, instead of getting better and not returning, it got worse than before, the consequence being that she was not able to attend school for two years. When



LIZZIE DAVIS

I examined her mouth I found that the tumorous growth was caused by the roots of a lower tooth which a physician had attempted to extract but had broken. I showed this child to two of the physicians of the school board, who agreed with me that the growth on her face was caused by the abscessed roots. Dr. John Noble, one of the physicians, kindly gave her chloroform and I extracted

the roots, the result being that in two weeks time the abscess healed up and gave her no more trouble. She was from the same school as Fred Gee, whose noted tooth cost the taxpayers of Toronto \$364.00.

Got as Fat as a Pig.

About three months after I had extracted Lizzie's roots her sister met me on the street and accosting me said: "Dr. Adams, you should just see my sister Lizzie now since you extracted those roots, she has got as fat as a pig. For two years before you extracted them she lay around the house and could not go to school or do any work, and the doctor's medicine did her no good, and they did not know what ailed her. She has been out of school two years now. Father has just died, so she will have to go out to work, for there will be no more money coming into our home except what we earn. We are so thankful to you for curing her and knowing

what the trouble was. What seems strange to us and our neighbors is that none of the doctors who saw her thought of a tooth being the cause of her sickness. I guess God must have sent her to your Dental Hospital. We would be in a bad fix, now that father is dead, if she was lying around the house as she used to, instead of going out to work, but she has lost her two years' schooling and can get no more now." The ill effects of the professor's mistaken diagnosis of Lizzie's case was not confined to the serious injury done to her; what was far more serious and far-reaching, was the fact that the medical students before him, who were to be the future practicing physicians, were receiving erroneous teaching. The professor should have known what he was talking about, that the cause of the growth discharging pus was caused by an abscessed tooth. The cause was plain enough to be seen had he diagnosed the case correctly, and told the students who were looking to him for correct instruction, that this was one of the many serious results of neglected teeth, and then impressed on their minds the need of teaching their patients the danger of neglecting the systematic care of their own and their children's teeth; he would not only have helped the students, but all their future patients. If they practice the teaching he gave them they will lay themselves open to heavy damages for malpractice.

A Case in the Western Hospital.

Some twelve years ago, in 1900, a young lad about fifteen years of age named Snowball, had an abscess with pus discharging on his face. A friend who had been reading my book and had seen the history of Fred Gee's case advised him to call and see me. He told

me that he had been suffering for over two years. He said he had been treated for a long time by their family physician, but not getting any better, but rather worse, he was sent by the doctor's advice to the Western Hospital, which was not very far away. The physician in charge there told his mother that it was a case of tuberculosis; he treated him for it for a long time, giving him medicine to purify his blood, but not getting better, but worse, the boy became discouraged and stopped going. Providentially for him this patient of mine having read my book on "School Children's Teeth" and the history of Fred Gee's case, decided this lad's was a case like Fred Gee's and advised him to call and see me. He did so, and on my making an examination, the cause was plain enough to be seen. In the lower jaw just above the opening on his face there was a badly decayed dead tooth. When I extracted it I found long pus sacks on each root, nearly two inches in length. The removal of the tooth and sacks left a large passage right through the jaw to the outside of the face, the bone being so badly eaten away by the long continuance of the inflammation and discharge. In a short time his face healed up and he got strong enough to go to work, but he had lost two precious years of schooling through the mistake of these physicians.

A Case in St. Michael's Hospital.

February 1st, 1901, a young woman called on me for advice. She had been treated for a long time in St. Michael's Hospital for lung trouble and was given little hope of getting better. She had given up her position, as she was too weak to work. On her right cheek there was an abscess that had been discharging pus for a long time before she went to

the hospital. The physician there, said it was caused by her diseased lung, and that it would be dangerous to heal it up. Not getting any stronger she went to stay with a friend on Buchanan Street. This friend brought her to me to see if a tooth had anything to do with the discharge. On examining her teeth, I found it was caused by a decayed root. After removing the root I asked them to let me know how long it took to heal up the abscess. I made an entry in my book of the time I extracted the root, and in just one week, her friend called, saying the discharge had ceased and that she was feeling much stronger. The physicians had predicted that she would die soon when she left the hospital. In a month's time she was back at work, a completely new woman. I called to see her some years afterward, when she told me she had not lost a day from her work since her recovery, and she thanked me for giving her a chance for longer life.

CHAPTER IV.

Medical Colleges Give Little Instruction About the Teeth.

The Mistake of a Superintendent of Another Hospital.

The Superintendent of another hospital, a friend of mine, brought his son to my office to get a tooth extracted, saying the boy had suffered for a long time with it and that he had treated the tooth time after time to give him ease, until the tooth would get loose and drop out and let the permanent tooth come in and take its place. He said the child suffered so

much, however, he thought he had better have it taken out and not wait longer. The boy's face was badly swollen under the lower jaw; the abscess that had formed was just ready to break out on the face and would have done so if the tooth had been left a day longer. When I examined his teeth, I said: "Doctor, this is too bad, that tooth should have been filled a year ago and saved, it is one of his first permanent molars and he will not get another tooth in its place." He replied, "Oh, no, you are mistaken, that is one of his first shedding teeth and he will get another new one in its place alright, he is only nine years old." Hard to convince though he was, I succeeded after a lengthened argument in convincing him of his mistake. You should have seen the sad look on his face when he realized the mistake he had made, in not knowing that children get their first permanent teeth at six years of age, and that soon after coming in they need filling. The doctor said he had received very little instruction about the teeth when attending the Medical College. He said, they did not seem to think the teeth were of very great importance. He learned the names of the different teeth and very little more.

Another Toronto physician who had been educated in two Medical Colleges, one of them in New York City, told me that in neither college had he received any instruction as to the serious effects neglected teeth would have on the general system. One of the Toronto school nurses also told me that she had received her training as nurse in Toronto and New York Hospitals. Yet she had no idea whatever of the ill effects bad teeth had on the health of an individual until she began examining the children's teeth in the schools. Then she became horrified, she said, at the sights she saw.

Eva Brown.

This fatherless child was sent into the Dental Hospital by the principal of one of our city schools. Like Lizzie Davis she had a large tumorous growth which was discharging on the under side of her lower jaw, the result of a neglected tooth. As in the case of the other children, her physician had prescribed a poultice for the face, and after the abscess had formed had lanced it, leaving the tooth still in the mouth. The child's mother told me that the physician had been treating the tumorous growth on her face twice a week for six months, and had prescribed cod liver oil to build up her system, which was being run down by the discharging abscess. In this case, as in the others, I extracted the abscessed tooth.



EVA BROWN

This photo of her was taken four months after the tooth was extracted. Her plump face speaks for itself and shows conclusively that she no longer needs cod liver oil.

These illustrations, I think, prove the folly of applying poultices to the face. The better way would be to roast a fig, cut it open, and apply the inside portion of it to the swollen gum near the diseased tooth. This would bring the abscess to a head inside the mouth, and

avoid disfigurement of the face. This treatment is only applicable in cases where the gums begin to swell.

A Boy's Head Drawn Down on His Shoulder.

A Very Interesting Case.

Some five years ago as I was about to leave a store where I had been waited on by a young man, he remarked: "You do not seem to remember me, though I have good reason to remember you." Pointing to an ugly scar under the lower jaw, he said, "Do you see that?" He went on to relate the following interesting story: "Some years ago when I was about fourteen years old, you came one day into my father's store for something, I do not know just what, but, you noticed that my head was drawn down on the left side and resting on my shoulder, and that there was an abscess discharging matter below my under jaw. My father told you that after it had been discharging for some time the muscles of my neck had gradually drawn my head to one side, that several physicians had treated me but had given up all hope of helping me, and that I had not been able to go to school or work for more than two years. You looked into my mouth and told my father that the whole trouble was caused by a dead abscessed tooth, and that if it was extracted I would soon get well. My father took your advice, saying that whether I got entirely well so I could straighten my head or not, if the tooth was bad it ought to be taken out. My father therefore took me to your office on Yonge St., and you extracted the tooth; soon after my face healed up and gradually I was able to straighten my head, but it took about four

months to get alright as before. In the meantime my health had improved and I was quite strong again. My father was anxious that I should get a good education and go into one of the professions, he wanted me to go back to school, but I could not get up courage enough to do so; I had been out of school over two years and all my school mates had advanced and were in higher rooms, while I had been going backward and had forgotten much of what I had learned before, and would now have to go into a lower form with small children. I could not think of doing that, so I took a business course and am a clerk in a store, but I am handicapped for life educationally, though I can make a living alright."

Cases in the Sick Childrens' Hospital.

A number of years ago a little girl twelve years of age was admitted into the Sick Children's Hospital suffering with an abscess on her face. Many of the best physicians of the city examined the case, which they thought was a very peculiar one, as it did not respond to the treatments they prescribed; instead of getting better it got worse as the weeks passed by. Fortunately for the little girl another physician examined her face and expressed the opinion that perhaps it might be caused by her teeth. The result was they sent for me, as I was a member of the Hospital staff. When I examined the child's mouth the cause of her suffering was plain enough to be seen, it was a dead, broken down tooth. I therefore extracted it, and soon her face healed up. She had been in the Hospital for ten weeks.

**Still Another Case of Mistaken Diagnosis by the Physicians
Both of the Toronto General and Sick Childrens'
Hospital.**

This child, Harry Steinburg, was sent to me from the Elizabeth Street School, with his



HARRY STEINBURG.

head bandaged as you see. I examined his face and found an abscess which was **discharging**

pus. The careful way the boy's face had been banded showed plainly that it had been done by an



HARRY STEINBURG.

This photo was taken six weeks after the abscessed tooth was extracted. Note the difference between the two portraits. He no longer requires the hospital bandages, and there is a very marked improvement in his health and general appearance, even in this short time.

experienced nurse, not by his mother. So I went back to the school to get the history of the case.

There I was told he was an out-door patient of the Sick Childrens' Hospital; I then took him there, The doctor said they had been treating him for three or four weeks, dressing the abscess and giving him systemic treatment. They evidently had no idea that the trouble was caused by a tooth, or they would have removed it or sent him to a dentist or the Dental College. How much longer their treatment would have continued and the boy have gone to school with his face bandaged, if he had not been sent to me, I do not know; it is certain it would have continued for years unless the tooth was taken out.

The teacher of the Elizabeth Street School received a letter from the boy's father, dated Toronto, November 12th, 1911, in which he said his son had suffered with this abscess for nearly a year, beginning in the old country. After coming to Toronto he took him to the General Hospital. The doctor, there, in addition to giving him medicine internally and externally, tied his mouth up with a cloth to keep out the cold. Not getting any better, he was taken to the Sick Children's Hospital. There, they did the same thing. "On Sunday, November 12th, it was swollen inside and outside. We went to the doctor's and they don't know what the trouble is with it, so we ask you to kindly write a letter to some other Hospital and see if they need to keep him in the Hospital until he is well, if so, let us know."

(Signed) Philip Steinburg.

If the treatment in another Hospital had been the same as in the General and Sick Children's Hospital, he would have had to remain there for years. Providentially for the boy, however, he was sent to me. I took him to the Dental College. The profes-

sors there agreed with me that it was a case of alveolar abscess caused by a dead tooth. They kindly gave him gas and extracted the abscessed tooth and some other teeth that required removing. In one week his face healed and he was able to go to school alright without bandages.

Another Case in the Elizabeth St. School.

Dora Goldman, another pupil of the Elizabeth St. School had been suffering for a long time from an abscess discharging pus, on her face. The following is a description she gave me of the case: "My face began to swell and swell, and got bigger, and I could not see out of my eyes, and our neighbors did not know me. My mother put dough and oil on my face and tied on a cloth. For a week I could not sleep or eat anything, I could not open my mouth to drink water or anything, I could only just cry, cry all the time, it hurt so awful. The day it busted I rolled on the floor and hollered and yelled awfully. When it busted the stuff that came from it was awful nasty, I could not bear the stinking smell, but it did not hurt me then, so I was glad. I went to the dispensary and the doctor gave me a medicine to rub on the sore twice a day, but it did no good. The stuff kept running all the time and smell nasty, awful nasty." It was just at this stage, when the physician at the dispensary had failed to help her, that I found her in the school. On examining her teeth I found that the cause of her trouble was a left inferior sixth year molar tooth. The first permanent molar and one that she had got only three years before (she was only nine years old), and yet it had decayed away to a mere shell, the nerve dead and the roots abscessed, resulting in the trouble she

described. I immediately extracted the remainder of the tooth and soon the abscess healed up, leaving only an ugly scar and a vacancy in the jaw where this most important tooth should have remained



DORA GOLDMAN.

for many a year. Just after her face healed there was a dental examination of the children's teeth in that school, the account of which will be found

in another place. A photo of this case was made by request for the Dominion Dental Journal, a copy of which is given here.



DOMINION DENTAL JOURNAL'S FRONTSPIECE, DEC. 15, 1911.
Dr. J. G. Adams, the pioneer of Dental Inspection of School Children, showing a case of facial disfigurement from an infected tooth.

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The Late Dr. W. T. Aikins an Ideal Physician and an Advanced Sanitarian.

The late Dr. W. T. Aikins, Dean of the Toronto Medical College, was very particular about his patients keeping their teeth in a sanitary condition. If a patient came to him in a run-down and anaemic condition, the first thing he did was to look at the teeth, expecting there to find the cause of the trouble. He told me that he almost invariably found the teeth in a bad condition and many of them gone altogether, or what was worse, a lot of rotten, abscessed roots, poisoning the blood and preventing thorough mastication, the result being loss of sleep, nervousness, indigestion, and general weakness. Instead of prescribing medicine he would direct his patient to go to a dentist and have all teeth filled that could be saved, and the roots removed and replaced by comfortable fitting artificial teeth, saying, when this is done wait two weeks and then, if you are not well, come back to me, there is no use of your making a drug store of your stomach.

Dr. Aikins was not only an ideal physician with his patients, but his name will go down in history as an advanced sanitarian, a believer in preventative medicine. He advocated every reform that was for the betterment of the public, and was particularly interested in the physical welfare of the poor. Dr. Aikins was the first physician who endorsed the systematic examination of school children's teeth.

The Importance of Oral and Dental Conditions.

W. P. Caven, M.D., B.A., Toronto, Canada.

(Published in the Dominion Dental Journal, Nov., 1911; read before the Academy of Medicine, Toronto).

This section is to be congratulated in its selection of a subject for discussion to-night. Along the line

of preventive medicine, I do not know that there is a more neglected field or a more fertile one than the oral cavity. Men, money and time have been freely sacrificed in the bacteriological investigation of rats, mice, mosquitoes, flies, and even the pediculus corporis, but what about the mouth. Does not this look as if we have been straining at gnats and swallowing camels?

A change, however, seems to be on the way, and the medical profession, and to some extent the public is beginning to realize that one of the causes greatly affecting public health is the widespread occurrence of oral sepsis. I take it that one of the main objects of our meeting to-night is to still further waken up the medical profession along these lines.

How many of us have to subscribe to these sentiments of Dr. Erskine Young, when he says, "In my medical days, I gave some special study to neuralgia, to insanity, to chest diseases, diseases of children and gynecology. But I frankly admit that odontology was conspicuous by its absence. During the time I was engaged in medical practice, I suppose I did not look at the teeth of six patients in six years."

To be perfectly candid, has not the medical profession considered the oral cavity as being without the pale of medicine except that it was the receptacle from which the tongue was protruded, and the dentist as a mere mechanic.

But a great change is now taking place and we are recognizing the very important part that dental caries and oral sepsis play in the health of the community; and we also recognize that the dentist is a member of a learned profession carefully and scientifically trained, and that this whole question of oral

sepsis must be handled by the physician, surgeon and dentist working hand in hand.

From the physician's standpoint, therefore, I want to direct your attention briefly to the state of the mouth in relation to certain diseased conditions, at a distance. I will not refer to all those symptoms of dyspepsia and gastritis which may owe their origin to inability to mechanically masticate the food properly by reason of diseased teeth, but rather to those depending upon absorption of toxine and bacteria into the blood stream, or from the swallowing of pus containing toxine and bacteria.

The secondary infection of the parotid gland as met with in cases of typhoid fever is a striking illustration of the effect of a septic mouth. Not only is this foul condition manifested locally in the parotid, but I have time and again been struck with the improvement in general conditions which follows the clearing up and disinfecting of the oral cavity in patients who have been admitted to the hospital in a neglected state.

The mucous membrane of the mouth and throat is undoubtedly one of the gateways through which the tubercle bacilli enters. In consequence of sepsis, a catarrhal condition of the mucous membrane may be produced, which of itself may set up a simple adenitis. But this is not the end. The resistance of the tissues is thus greatly impaired and this is all the omnipresent tubercle bacilli need to enter the field and flourish and bring about a tuberculosis of the lymph glands.

That septic infection of the mouth plays a considerable part in bringing about gastric and intestinal sepsis, as well as the various anemias, I consider undoubted.

Mention of this subject at once brings to our

mind Hunter's work in this connection. One of the bases which suggested to him observing the condition of the teeth and oral cavity, in relation to septic infection, was that of a case of subacute gastritis caused and kept up by three suppurating teeth and permanently cured by removal of these teeth.

One naturally asks is the healthy stomach not capable of resisting the pyogenic and other organisms swallowed from the mouth with cario-necrosis of the teeth. Hunter points out that even in health the power of the stomach to destroy such organisms is not complete, and that such power is due to the presence of free Hcl.

With rotten teeth incapable of proper mastication and a mouth foul with pus, the next step almost of necessity is the occurrence of a catarrhal gastritis and consequent diminished Hcl. In time, therefore, the catarrhal condition of the stomach and gastritis, which at first may not be of an irritant nature, the result of fermentation, becomes septic in character, due to actual septic infection of the mucosa.

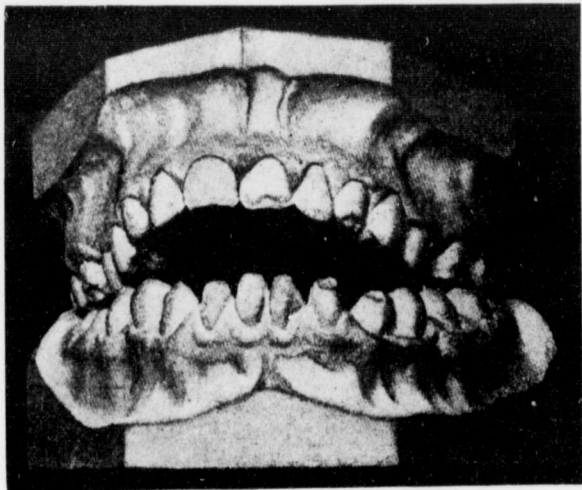
Nor need the infection stop here, but many of the infective processes which we dismiss as of obscure origin, such as osteomyelitis, meningitis, ulcerative endocarditis, owe their origin to local suppurative conditions in the mouth, jaws, tonsils or pharynx.

Of late years, I think all physicians are alive to observing the condition of the mouth, teeth and tongue in pernicious anemia. My own observations lead me to conclude that glossitis and stamatitis are early symptoms in at least 60 per cent. of cases, and that cario-necrosis of the teeth is usually their antecedent.

Hunter's conclusions are.

1. Pernicious anemia is a chronic infective disease.

2. It is the result of a special infection of the digestive tract, especially of the stomach, frequently also, although to a less degree, of the mouth and of the intestine.



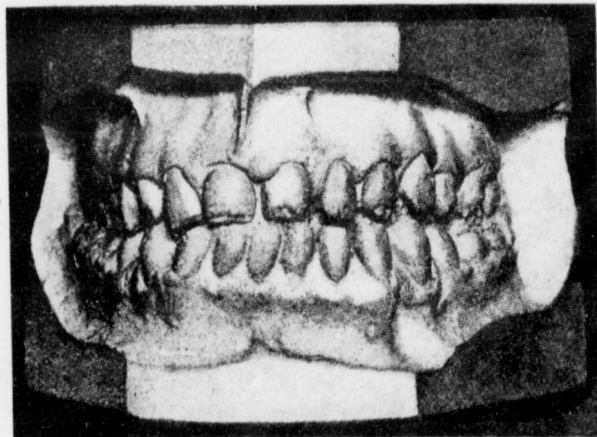
BEFORE REGULATION.

Another serious case of mouth breathing. In this case you see that the patient cannot bite or masticate food, as there are only two teeth that articulate with the teeth on the opposite jaw. In this condition what chance has a child to develop a strong constitution.

3. The chief source of the infection is oral sepsis, arising in connection with long continued and neglected cario-necrotic conditions of the teeth.

Medical Students of 1912 Not Receiving the Instruction They Should on the Important Functions of the Teeth.

I am pleased to give this extract from Dr. Caven's very interesting paper, not only because it shows that I have not over stated the case as to physicians not taking the teeth into consideration as much as they



AFTER REGULATION.

This cut shows the great improvement Dr. Angle has made in this case by regulating the teeth. Every tooth articulates perfectly. In this case, as in all others, the enlarged tonsils and adenoids had to be removed first, making it possible to breathe correctly.

should in many cases, but more because it shows that there is an awakening on this subject among some of them. What, however, about the medical students of 1912? This morning, Jan. 10th, 1912, I called on Dr. Primrose, secretary of the Toronto Medical Faculty to enquire as to what lectures were being given

to the medical students on the teeth and the effects neglected teeth had on the general system.

He said he was sorry to say there were no such lectures given.

He said that a year ago members of the dental profession had suggested that such lectures be given, but as yet nothing had come of it.

The medical profession on this continent during the past quarter of a century, have made great strides in many respects, still, surely, the many serious cases I have given of mistaken diagnosis by prominent physicians in a university city like Toronto, indicates a great need for a move on by the profession in this respect. "Preventive Medicine" should be the ideal of such a profession.

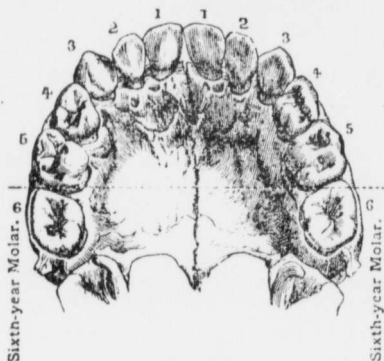
CHAPTER V.

The Evil Increased Through Lack of Knowledge.

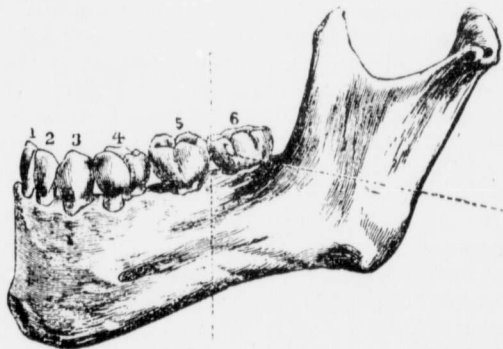
It is one thing to diagnose; the next to provide and adopt a remedy. The only remedy at present is to fill the teeth as soon as they commence to decay, long before the nerve pulp has been exposed or the tooth has ached, and while it can be done at one sitting. But just here comes the great difficulty, which doubly increases the seriousness of the evil. The parents, even among the well-educated, are not aware that the teeth that are aching are their children's **permanent teeth**, until they take them to their dentist to have their teeth extracted, and then, to their surprise, find that they are permanent teeth and past all hope of being saved. It is often pitiable to see the sorrow of these parents when told that their children's teeth, which

are past being filled, are permanent teeth, and that they will have to be extracted. Ask any dentist, and he will tell you how hard it is to convince parents that such teeth are really permanent teeth. Their universal reply is: "No; surely it cannot be, for they have not shed their first teeth yet!" They do not know that they get their first permanent molar teeth at **six** years of age, but think these molars are the last of their temporary teeth and will have to be shed that new teeth may take their place. The result of the parents not knowing in time that their children's permanent teeth are decaying is twofold: First, these neglected sixth-year molars, after having caused excruciating pain often for weeks and months before the children are taken to the dentist, are lost to the children for all time in masticating their food and have to be cruelly wrenched out from their delicate jaws, causing the children great terror and pain, and often danger of dislocation of their tender and delicate jaws. I have sometimes been in perfect terror when extracting such teeth for fear of dislocating the jaw, the teeth were so hard to extract and the jaws so delicate in comparison. Secondly, these teeth, having been left in the mouth so long in this decayed condition, have decayed the new bicuspid and the twelfth-year molars, which are permanent teeth. Thus the mouth is soon full of corruption, each decaying tooth acting on the other. The food not being masticated injures the stomach, and the acids from it in return act injuriously on the teeth. They thus acting and reacting soon derange the whole system, and it is an easy prey to any virulent microbe germs with which the children may come in contact; their blood, being impure, cannot give them vitality enough to withstand these deadly germs.

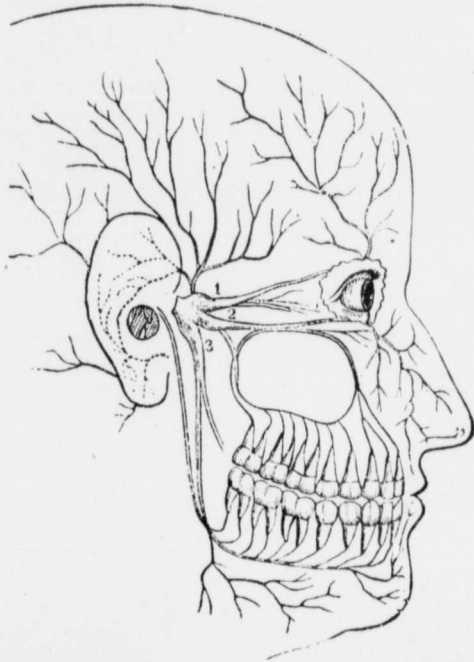
If the majority of educated parents make such mistakes in reference to their children's permanent teeth, what can be expected of the ignorant poor? This will partly explain the great difficulty I have



Children have only twenty teeth in their first or "milk set." These two cuts show the upper and under jaws of a six-year-old child, with the sixth-year permanent molars, in addition to the deciduous or first teeth.



had for many years in reaching the children of the poor in time to save many of their teeth. This difficulty has made the hospital work exceedingly discouraging. The only reward which I receive for the work done, and the thousands of dollars expended, is the satisfaction of knowing that the children of the poor, by having their teeth cared for, will not only be saved from unnecessary suffer-



This cut gives a side view of the face of an adult, showing how the teeth are supplied with nerves, a branch entering each root and acting as 'sentinels' to give warning of impending danger.

ing, but that they will grow up strong and be better prepared to combat with the difficulties of life. But, though I have tried every way I could think of to overcome this difficulty, my efforts, as far as the thousands of poor children who were scattered through the different schools of the city is concerned, has been largely a failure; for they do not come into the Hospital until they are driven in by toothache, and many of their teeth are abscessed and past being saved, and their mouths in the disgusting condition I have described, making the work of saving their teeth not only unpleasant, but very difficult and unnecessarily expensive, requiring as much **material and time** to save one of these bad teeth as would be required to save from ten to twenty teeth, if got in time; besides, when the work is done, it does not do the children the good for which I am spending both time and money.

A Striking Object Lesson.

I have none of this difficulty in saving the teeth of the children in the following ten city public schools (as I always know where to find them) viz., Elizabeth St. School, Boys' Home School, Girls' Home School, Boys' Industrial School, Girls' Industrial School, Rescue Home School, Newsboys' School, Bethany School, and the Creche. Many years ago I began caring for the teeth of these children free, in the Dental Hospital I had provided for the poor of the city, which was opened June 23rd, 1872.

In order to reach the children in these schools in time to save their teeth instead of being forced to extract them, I began the systematic examination of their teeth, visiting each school twice a year. When I began this system I found their teeth in a most

wretched condition, many of their permanent teeth being past filling and requiring to be extracted. Almost all of the children required some dental care every six months, and were sent to me in the Dental Hospital, where my assistants cared for and filled their teeth under my supervision. After going over their teeth the first time, filling all that could be filled and extracting all that were past saving, we had an easy time keeping their teeth in good, healthy masticating condition. Except when some children from other city schools came into these schools, we never had to treat an aching tooth, cap an exposed nerve, or destroy a nerve. We were no longer forced to wrench big, broken-down permanent teeth out of the children's delicate jaws, as in the case of the children from other schools. After having gone over their teeth the first time they never had to suffer with toothache, or were kept awake at night with neuralgia. Thus they were able to eat, sleep, study, play and grow up strong, healthy, happy, useful citizens.

As the teeth were always filled while the cavities were very small, and before the decay had reached the nerve, they did not require treating with medicine, and therefore the filling was done at one sitting, with little work for my assistants, and with much less expense to me for filling material. By adopting this systematic plan, the children never had to be absent from school more than half a day twice a year. This half holiday they looked forward to with pleasure.

Sometimes when visiting these schools I would find that some of the children's teeth had been so thoroughly attended to they did not require anything done at that time, and not for another six months. Often when some of the children were told



ELIZABETH ST. SCHOOL CHILDREN.

These are only two classes of the Elizabeth St. School children, whose teeth for many years I systematically examined twice a year, and cared for free in Christ's Dental Hospital.



CARED FOR THE TEETH OF MORE THAN A THOUSAND CHILDREN OF THE
ELIZABETH STREET SCHOOL.

During the many years I cared for the teeth of the children in the Elizabeth St. School, more than a thousand children must have passed through my hands. Every year the older children were leaving, making room for others to take their places and receive like care.

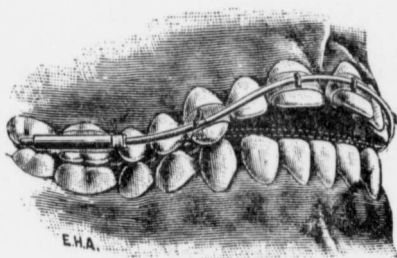
this they would burst into tears. Of course that always brought about another examination, and I would be sure to find some excuse for their going to the Dental Hospital with the other children and enjoy the half holiday. Their bright, sunshiny faces, after the heavy rain of tears, was a sight worth seeing. The happy condition of the children



This cut shows the under jaw of an adult, after the teeth have been extracted. The upper part of the jaw that holds the teeth is called the alveolar process. It is not the jaw proper, its mission is to hold and support the teeth, also to hold out the lips and cheeks. When the roots are extracted it shrinks and absorbs away. That is why artificial teeth become loose in the mouth after having been worn for a length of time. They should be replaced with a new set, or be made over on a new model.

in all these schools well repaid me for all the money, time and labor I was spending on them. The carrying out of this system of dental inspection with such grand success proves without questioning, that there is no need for the terrible slaughtering of children's

teeth now taking place all over the world. Boasting as we do of our high state of civilization, it makes me blush with shame at being forced to give the following additional proof of the wretched condition in which I have found the children's teeth, in the best schools of our land. I think everyone who reads it will admit that it makes too dark a background to the bright picture I have just



This cut shows the mode of regulating such cases as this.

given of the children in the schools where their teeth are systematically examined. However, as the historian of this reform, it is my duty to truthfully record the facts as they are, and thus open the eyes of the public with the hope that when recording future history, it may be brighter.

SCHOOL CHILDREN'S TEETH.

TORONTO SCHOOLS.

NAME OF SCHOOL.	No. of Children Examined.	No. of Children who at times were Unable to Sleep at night, Suffering from Toothache or Neuralgia.	No. of Children Detained from School for Days or Weeks with Toothache or Neuralgia.
Wellesley	816	396	191
Ryerson	912	437	252
Dufferin	1130	513	216
Gladstone Avenue.	605	244	58
Huron Street	748	375	148
Parkdale	806	430	149
Lansdowne	1067	373	232
Church Street.....	617	301	106
Clinton Street.....	376	195	72
Phoebe Street.....	610	230	100
Manning Avenue....	571	208	89
Jesse Ketchum.....	815	435	183
Park	832	354	156
Louisa Street	326	158	60
Total.....	9231	4649	2012

TORONTO SUBURBAN AND VILLAGE SCHOOLS.

NAME OF SCHOOL.	No. of Children Examined.	No. of Children who at times were Unable to Sleep at night, Suffering from Toothache or Neuralgia.	No. of Children Detained from School for Days or Weeks with Toothache or Neuralgia.
Eglinton.....	174	109	41
Deer Park.....	105	55	25
Davisville	142	67	49
Total.....	421	231	115

HAMILTON SCHOOLS.

NAME OF SCHOOL.	No. of Children Examined.	No. of Children who at times were Unable to Sleep at night, Suffering from Toothache or Neuralgia.	No. of Children Detained from School for Days or Weeks with Toothache or Neuralgia.
Barton Street.....	308	172	114
Picton Street	357	144	99
Wellington Street..	360	260	116
West Avenue	393	230	144
Mary Street	146	87	59
Hughson Street	85	45	6
Ryerson.....	755	361	216
Hannah	178	69	36
Mountain Avenue .	60	43	28
Central School.....	434	197	84
Main Street.....	167	111	35
Pearl Street	183	120	66
Hunter Street	195	52	11
Sophia	106	44	23
Market Street	143	87	48
Murray Street	370	186	125
Victoria	599	319	176
Hess Street	637	225	129
Queen Victoria.....	687	361	144
Cannon Street	520	306	150
Total.....	6683	3419	1811

LONDON SCHOOLS.

NAME OF SCHOOL.	No. of Children Examined.	No. of Children who at times were Unable to Sleep at night, Suffering from Toothache or Neuralgia.	No. of Children Detained from School for Days or Weeks with Toothache or Neuralgia.
Rectory Street	286	190	103
Askin Street	340	161	60
Aberdeen School...	342	275	112
Maple Avenue	159	83	40
Lorne Avenue	217	180	102
King Street	113	57	29
Talbot Street	338	217	96
St. George's	288	169	83
Chesley Avenue ...	94	59	34
Princess Avenue ...	513	212	135
Total.....	2690	1603	794

GUELPH SCHOOLS.

NAME OF SCHOOL.	No. of Children Examined.	No. of Children who at times were Unable to Sleep at night, Suffering from Toothache or Neuralgia.	No. of Children Detained from School for Days or Weeks with Toothache or Neuralgia.
Wentworth Street.	476	204	100
St. John's Ward ...	176	106	41
St. George's Ward	351	232	95
Central	727	343	125
Total.....	1733	885	361

**School Children's Teeth in Eastern Cities, Montreal,
Quebec and Ottawa.**

The following is the result of the examination of the teeth of some school children in the Eastern cities, which may be of interest to you, showing that the children's teeth there are in a similar condition to those in Ontario cities, largely through lack of knowledge on the part of parents.

Lansdowne School, Montreal.

In the mouths of one hundred children I examined, I found there were one hundred and seven (107) permanent teeth so badly decayed and abscessed they were past being saved by filling. These teeth and roots kept the children's mouths in a wretched, unhealthy and unsanitary condition. To save the remaining permanent teeth the children would require eight hundred and sixteen fillings (816) many of the teeth requiring several fillings in them. None of the hundred children had any fillings in their teeth. None of the children had sound teeth.

Dufferin Public School, Montreal.

In the mouths of seventy-eight children examined, I found four hundred and twenty-five permanent teeth decayed, and seventy of these were past saving by filling. These were in the most wretched condition and badly abscessed, making it impossible for the children to masticate solid food. The odor from the teeth of these children was unbearable, yet the teachers and other children had to inhale it for six hours a day in the crowded school rooms. That was bad enough, but what about the children in whose mouths these vile teeth were. Besides the vile, poisonous matter they were hourly taking into their stomachs, they had to inhale the foul air from

their bad teeth for the twenty-four hours of each day. Only four of these children had sound teeth. Only two had any teeth filled.

Kindergarten Department of Dufferin School.

I examined the teeth of twenty children in the Kindergarten department, and found one hundred and eighty-three teeth in various stages of decay and of these thirty-six were permanent teeth that were going to decay without the children's parents knowing or suspecting such a condition. None of the children had any teeth filled. Quite a number of the children had as many as four of their permanent molars and one of them was past saving. It made my heart ache to see the condition of the children's teeth that were going to destruction before they had the use of them for one short year.

Model School, Quebec.

I examined the teeth of one hundred boys and girls in this school, average age thirteen. I found seventy-three permanent teeth that were past filling and in a most wretched condition, polluting their breath and poisoning their blood, and preventing all possibility of thorough mastication. To save the remaining permanent teeth for the one hundred children, it would require eight hundred and fifty-five (855) fillings. Only five of the children had sound teeth, and only two had any teeth filled.

One of the Ottawa Public Schools.

In one of the Ottawa Public Schools I examined twenty-nine children, average age twelve years. Total number of decayed permanent teeth, one hundred and eighty-four. There were twenty-four permanent teeth badly abscessed and past being saved,

many of them mere shells filled full of decomposing food, a veritable hot-bed for the various microbes to ruin the children's health. These children all be-



Showing one kind of head gear which is worn for the regulation of protruding teeth. It is not worn all day, as it would cause headache, another appliance being used in its place between times.

longed to the better class of parents who would have been alarmed if they knew their true condition, and

that the teeth were the permanent teeth. It was not for the want of money or interest in their children that they neglected them. None of the children



Note the sad, disconsolate appearance on the face of this young lad. It shows a conscious feeling of shame and discouragement.

had sound teeth. Only three of the children had teeth filled.

Orphans Homes, Montreal and Ottawa.

Total number of children examined was sixty-five (65). Total number of permanent teeth de-



Note the change in self respect and dignity in this sensitive boy, as the deformity formerly causing him such real anguish diminished. Dr. Angle said he had frequently noticed the same with other patients, and adds much interest and pleasure to the work of the Orthodontist.

cayed was two hundred and three (203). There were twenty-six permanent teeth past saving by filling. These teeth, like those in the other schools were in a most wretched condition, and the children sadly handicapped for the battle of life; none of these children had sound teeth, or any teeth filled.

American School Children's Teeth.

The examination made of school childrens' teeth in Buffalo and elsewhere showed the same rapid decay and neglected condition as in our Canadian cities. In some of the schools there was not more than three per cent. of the children who had sound teeth. The teeth of the children in the largest German school on the continent were no better than others. The principal of one of the schools was surprised beyond measure when I showed him the condition of the children's teeth, and still more so when I told him that they were permanent teeth. "Why," he said, "can it be possible that their permanent teeth are in that condition and they so young. Why, every day, I have been sending the children away to get such teeth extracted, never dreaming that they were permanent teeth that were aching. Some days I have to send as many as a dozen children to get their teeth extracted. It is too bad, but I did not know they were permanent teeth, and I am sure the parents do not know it either."

A Visit to the Indians of Georgian Bay.

Some years ago I went to the Indian reserve on the Georgian Bay to look into the condition of the Indian children there. On the whole I found their teeth in the same condition as the white children of our cities. They were soft, chalky and badly decayed.

A Pleasant Surprise Awaited Me.

At a home I visited I found that the father was a Mohawk, but the mother was a French-Canadian. No lover of art ever found greater delight in beholding a masterpiece than did I in that which awaited me in this humble home of the forest; its memory lingers with me still. In this home there were eight children, ranging from two to fourteen years of age. In examining their teeth I began with the eldest, as the little ones were as timid as the wild deer of the forest. I did not have to hurry through with my examinations, as I sometimes have been forced to do in the city schools, where the odor from the breath of some children was stifling. In the tens of thousands of children whose teeth I have examined I never found such beautifully perfect teeth as in the mouths of these children. Not a flaw or defect was to be found in the teeth of any of the eight children, every tooth was perfect and a delight to behold. The breath of the children was sweet, their tongues, teeth and mouths clean, a vast contrast to the mouths of so many of the school children in our university city. After making the examination I said to myself, "I know where to find the secret of this perfect condition of the children's teeth—it is with the mother." I therefore asked her if she would allow me to examine her teeth. She kindly consented, and I found just what I expected. She was a fine, healthy woman about forty years of age. Her teeth, like her children's, were perfect in quality, with a rich, healthy color and beautifully shaped. The occlusion and masticatory power was perfect. She had been able to thoroughly masticate and digest her food, her blood was pure; free from the poison so many mothers are subjected to by bad

teeth. Therefore her children were well nourished, both before birth and while being nursed.

CHAPTER VI.

Protect Future Generations.

The Child of To-day, the Parent of To-morrow.

After seeing this object lesson, showing the blessing a mother's good teeth had conferred upon her



BEFORE REGULATION.

This is a case of very close bite. The teeth are very short and bring the chin and nose too close to each other when the mouth is closed. This makes her appear much older than she really is. Note how her chin turns up and the under lip falls in. Also how narrow her jaws are, giving a peaked appearance to the face. Also a dejected, sad look, one of hopelessness.

offspring, it made my heart ache when I thought of the millions of little children of our land who are handicapped for life by the wretched condition of their mother's teeth. If the teeth and health of the little girls in our school are not now cared for, what chance will their children have in the battle of life?

As the child of to-day will be the parent of to-morrow, we should give her every chance to grow



AFTER REGULATION.

It will seem incredible that these two cuts represent the same person. Yet they do. This cut speaks for itself, showing what an artistic Orthodontist can do to bring life and beauty into an otherwise sad, disconsolate heart and face. He has lengthened the teeth and broadened the jaws, thus making a complete change in the features. Now she is bright and happy.

up strong, with a good constitution. Our country needs strong, robust people. I wish every parent could see the terrible sights I have seen among little children, whose mothers' teeth have been neglected, some of them not more than two years old, with every tooth as rotten as its mothers. Where the mother's teeth are bad, the children's teeth are sure to be bad also. It is no wonder that this should be the case, when you take into consideration the fact that for nine months before birth and for nine months after, until the child is weaned, it draws its entire nourishment from its mother. If her stomach has been injured for want of teeth to masticate her food and her blood has been poisoned from childhood up, with rotten abscessed roots, her children cannot possibly be as strong as if her teeth had always been kept in a healthy condition. Besides, the mother's general health having been injured by her bad teeth, she has not had sufficient nourishment or sleep, therefore she becomes more or less a nervous wreck, easily frightened, irritable and low spirited. Her children, poor things, necessarily inherit this tendency. They in turn hand this down to their children, and the world is so much the worse for it.

Danger From Impure Milk.

The health authorities are waking up to the danger of using milk from diseased cows and from cows kept in unsanitary stables, or forced to drink impure water. They make and enforce very stringent laws governing the milk supply, particularly that which is to be used by young children. They are not taking this precaution any too soon. Do you wonder that I so persistently protest against helpless infants being compelled to receive their nourishment from their mother's blood-poisoned milk. Go

to any of our cemeteries and see the vast number of little graves, tens of thousands of which should not have been dug for thirty, forty or sixty years later! They would not have been dug so soon if mothers and children's teeth had been cared for in the systematic way I have pointed out. An eminent English physician said he considered that the rapid increase in intestinal troubles among the children in England, so often ending in death, was directly attributable to the children's bad teeth. Our government spends vast sums of money yearly to bring foreigners out to populate our country. That is alright, but why not try and save the health and lives of our own Canadian children. They would make far better inhabitants for our fair Canada than a vast number of people brought out at much expense.

Prevention Better Than Cure.

Is it not time that something practical was done to prevent this wholesale sacrifice of the children's teeth, health and beauty. Instead of trying to relieve pain and heal disease, the true sanitarium goes before them crying, "Halt! you cannot enter here." Since it has been proved by practical experience that the strict enforcement of sanitary laws, though they may often seem harsh, has greatly improved the general health and saved valuable lives. Why should it be considered a fad, when I advocate sanitary reform in reference to the teeth? I wish here to call attention to the fact that when other parts of the human system become diseased, Dame Nature comes to their aid and tries to relieve them, but when the teeth of the present day become diseased, she leaves them to go to destruction. But this much she has done! She has placed them in a position where they can be seen and their condition watched without

difficulty, if their owners have enough common sense to do so.

Dental Inspection of School Children's Teeth, and Dental Hospitals for the Poor the Remedy.

I have now shown you the great contrast between the splendid condition of the teeth and mouths of the children in the schools where for years I carried out the system of systematic semi-annual dental examination, and that of the wretched, neglected condition of the school children in the cities everywhere where this practical common sense system is not adopted. Surely this great contrast should be sufficient to convince every thoughtful parent that this system of dental inspection is not a "fad," but an absolute necessity.

Let me ask then why should not every parent in the cities and towns on this continent be informed in this way, of the condition of their children's teeth? This would prevent great suffering, and the unnecessary expense of having to pay for the extra material, time and labor on the part of the dentist in trying to save bad teeth. I have had the opportunity of seeing this condition of children's teeth, as perhaps no other person has had. I have given this subject many years of careful study, and am prepared to say there is no other remedy equal to this. I therefore suggest that in every city and town, all school children should be required to have their teeth examined twice a year, either by their family dentist or a dental inspector. The latter would examine the teeth of all children who did not bring a certificate to school from a dentist, stating that their teeth had been examined and were being attended to. The examination should always be made in the presence of a parent or guardian, to whom the den-

tist could show the exact condition of the teeth and explain all that would be necessary for the parent to know for their proper care. That parents should see for themselves the condition of their children's teeth, is exceedingly important. Receiving a notice from a school nurse stating that their children's teeth are bad and are requiring attention, will not meet the needs of the case with fifty per cent. of the parents. Besides this, the school nurse's examination is only superficial; she only reports cases where the teeth are very bad.

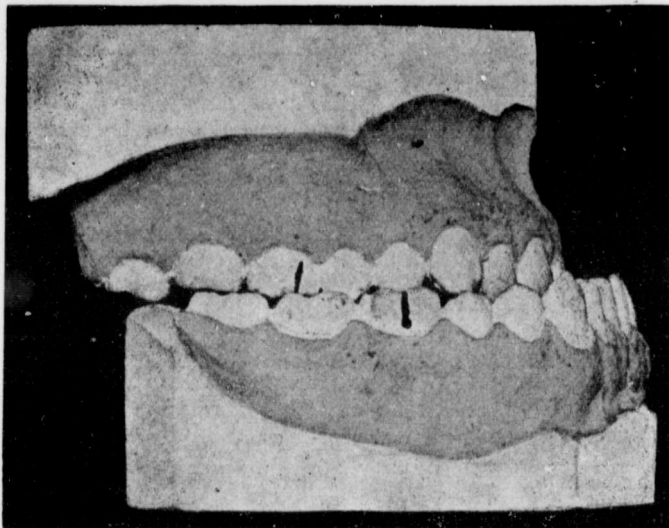
Prevent Teeth Becoming Bad.

The object of dental inspection, as I have shown, is to prevent children's teeth from ever becoming bad, and I have given a practical illustration, proving that prevention is possible. The examination of the children's teeth must be made by an experienced practical dentist, not by a school nurse, whose examination is only superficial, and who therefore sends reports only to parents whose children's teeth are very bad. They cannot inform parents as to what teeth require filling or as to those that should be extracted. Every city and town should have one or more school nurses, for they can do a great deal of good, both in relieving and preventing suffering, but they are medical trained nurses, and can give no correct instruction as to the condition of children's teeth that require treatment, which is so varied. The premature or lengthened delay in the extraction of the deciduous teeth will cause disfigurement for life, or else very expensive regulation and discomfort.

One of our Toronto medically well-trained nurses sent a child to a dentist, telling her she should get her teeth extracted. The dentist, speaking about

it, said it would have been a serious mistake indeed to have done as the nurse directed.

Another nurse sent a child to a dentist, saying such a tooth should be filled. The child returned



This is a case, as you see, where the under jaw and teeth protrude far beyond the upper jaw and teeth, the under teeth necessarily covering the upper, thus making a very short bite, bringing the nose and chin too close together. This case is just the reverse of the former case, where the upper teeth protrude. The appearance is much more unpleasant than the former. All such cases should be regulated in childhood, when it can be done with less expense and annoyance. The black strokes on the upper and lower teeth show the change necessary to be made in the position of the teeth and jaws to make perfect occlusion and improvement in appearance of the features.

to school and told the nurse that the dentist said it did not need to be filled, as it was one of her first teeth, and it was time for it to be taken out, so as to



Some thirty years ago I had a case somewhat similar to this, only not so difficult. The patient was a young man about twenty years of age. His under teeth completely covered the upper teeth when he closed his jaws, which gave him a peculiar unpleasant monkey appearance. It required six months time to make the change so that his upper teeth would cover the under teeth. The lower jaw and teeth had to be forced backward and the upper forward. The change in his appearance was so great that his former friends, who had not seen him in the meantime, hardly knew him.

let the new tooth come in. The nurse became quite indignant and said, "you go back and tell the dentist that it is a permanent tooth and must be filled." After giving this peremptory instruction to the child, she hesitated and said, "Who is your dentist?" The child replied, "Dr. ———." "Oh," said the nurse, "I guess he is right, he is my own dentist."

Nice Looking Teeth.

Many very nice looking teeth are badly decayed, and none but an experienced dentist would detect the decay before the nerve pulp became exposed and the tooth began aching. The dentine, the inner part of the tooth that covers the nerve pulp, is much softer than the enamel and decays very much faster. In the enamel of apparently good teeth, there are crevices which, though very small, allows the fluid and germs in the mouth to penetrate and decay the softer dentine. This destruction of the dentine goes on quietly and unperceived by the child, nurse, or parent. The teeth are described as beautiful until a bite on something hard crushes the thin enamel into the deep cavity hollowed out by decay. In such cases it is very common for the person to tell the dentist that his tooth had decayed "awful quick," while the truth was that the decay had been going on for months. Had the teeth been examined by an experienced dentist, the cavity would have been detected and cleaned out and filled before the decay had gone far, the tooth thus requiring no treatment, and only a small filling and at an equally small expense. With my many years' experience in caring for children's teeth, I have in hundreds of cases found myself deceived by the apparently small opening in the enamel of a tooth. I would think that cavity could go without filling for another six

months, when it would be about right for filling. However, finding that the child would be leaving school before then, I would decide it best to fill it at once, expecting of course to find an exceedingly small amount of decay, when to my surprise I would often find the dentine badly decayed, sometimes close to the nerve. Sometimes a large part of the enamel would drop off the side of the tooth because so much of the dentine had softened, yet even to my experienced judgment the tooth apparently did not require filling, it looked so strong and healthy. With all the facts I have placed before you, do you wonder that I insist on the systematic examination of school children's teeth, and that by experienced dentists.

Dental Hospital Provision for the Poor.

As in every city and town there are large numbers of parents who cannot pay much, and many who cannot pay anything for having their children's teeth filled, it will be necessary to make dental hospital provision for them, charging those who can pay something simply enough to pay expenses. To lessen the expense of the Hospital, the Superintendent could act as Dental Inspector as well, giving an hour or one hour and a half each morning, with an assistant, to examine the teeth of those children who did not bring a line to school stating that their teeth had been examined. These, of course, would only be those children whose parents could not pay a dentist the usual fee. The advantage in the appointment of the superintendent of the Hospital to inspect the children in the schools would be two-fold: (1) Whatever salary would be paid for the inspection would be that much in aid of the Hospital. (2) He being the superintendent as well as the inspector, would become acquainted with the children

of the poor and would have the right to give tickets to those of them who were not able to pay, so that they could go to the Hospital and have their teeth filled free, while all other children going there would be required to pay something towards the expense. By the adoption of this system of a half-yearly school inspection, all school children, rich and poor, would be systematically examined in time, so that their parents could have their teeth saved without their having to suffer so much as they do now by having to endure that cruel and barbarous treatment of having the nerve pulps in their teeth destroyed, with the additional likelihood of their teeth giving them trouble after being filled. The saving in expense to the parents would be at least one-half, besides the saving of time to the children by being able to have their teeth filled at one sitting, instead of having to go to the dentist every other day for weeks to have their teeth treated.

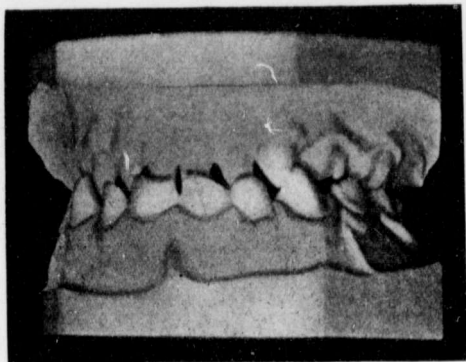
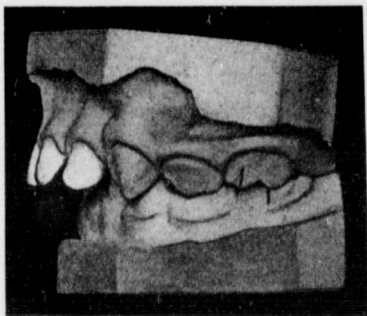
CHAPTER VI.

Timely Advice to Mothers.

Caring for the Little Tots—Mother's Darlings.

Parents who truly love their children and desire to have them grow up strong, beautiful and free from suffering and ill health, will, I am sure, take my advice and not forget to have their little children's teeth examined two or three times a year, beginning when they are two years of age, as their first double teeth often begin to decay at that age, and they need to be filled to keep them from aching and from being lost to them before the time when they should shed them, which is from

nine to twelve years of age. The majority of little children, from being neglected, lose the use of these teeth many years before they should, whereas a small filling would have saved them. It seems strange to me to hear mothers say: "Mother's dar-



These cuts show the models of the jaws and the profile of a child's four years old, and the great improvement Dr. Angler has made.

ling!" "mother's pet!" etc., and at the same time they let their darlings, as they call them suffer with toothache and neuralgia, day after day, and night after night, to the great injury of their health and to the other teeth that are to follow them. If chil-



BEFORE REGULATION.

dren's first double teeth are allowed to decay, they are soon lost to them for mastication; what with a tooth out here, and a tooth out there (or, what is still worse, a lot of dead roots), the children are not

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able to masticate their food, and consequently the trouble that I have already pointed out in reference to the permanent teeth is sure to follow. But,



AFTER REGULATION.

strange thought it may appear, parents, as a rule, never think of getting their "darling's" first double teeth filled! They say: "It is no use to do so; they

will shed them soon. But in this they are mistaken, as these first molars are not replaced by the new bicuspids until the children are from nine to twelve years of age, and often not until fourteen years of age. So you see what a great loss your little children will sustain in the matter of mastication for so many years. That, however, is only a part of the injury, for the process or bone that encloses the roots of the first teeth absorbs and shrinks away long before the new, larger teeth are ready to come in, and they will thus be crowded out of their proper place and disfigure the child.

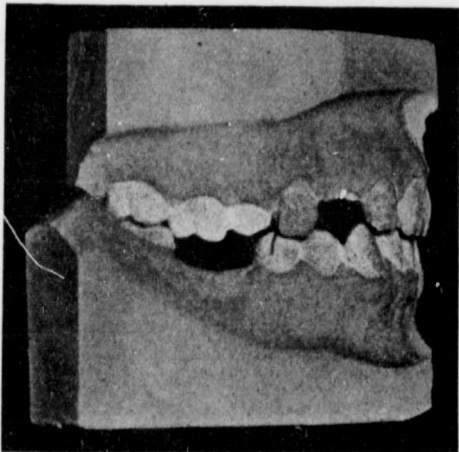
Do not try to doctor up your children's teeth with medicine or toothache gum, as these will only make them worse in a short time. It does not cost (nor yet "hurt") nearly as much to get their teeth filled when done in time, and it will pay an hundred-fold in the health of the children. Of course, if you are not particular about their health and comfort, just let their teeth go! But I wish to call your particular attention to a fact that is often lost sight of, and that is this: When you lose one tooth you lose the use of its mate in the opposite jaw, as it has nothing to grind against. I have often found children with only two or three teeth that had mates to grind on. Yet some people who appear to be possessed of an ordinary amount of common-sense will say, "Oh! it's only a tooth!" Very often the jaws change their shape and greatly disfigure the features, from some of the teeth being extracted, leaving no teeth in that jaw to antagonize those in the opposite jaw. See accompanying cut.

It is a very common occurrence for young women to come into the dentist's and ask to have their front teeth filled with gold; but when they are told that their molars and bicuspids are decayed and need

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filling also, they reply: "Oh, I do not care for them; they are not seen!" Poor silly things! It is impossible to convince them that the teeth which they are neglecting are the most important in the mouth, and that their health (and that means



This cut shows how, some of the under teeth having been lost for some time, the upper molar is working down to get something to bite on. You notice that the jaw at that point is also moving downward, as I have pointed out to you. "A tooth out here and a tooth out there."

beauty) depends upon **saving their back or masticating teeth**. If these teeth are lost their cheeks will fall in, and the bloom on their cheeks will disappear. Others will insist on having their teeth extracted because they are a little crooked or do not look "nice." As an illustration: One young girl about fifteen years of age came in last winter and asked me to extract her upper teeth, which were

almost entirely sound. This I refused to do, and I tried to show her the folly of having them out. She became quite indignant, and left saying that if I would not extract them she would find another dentist who would. I said "Very likely!" And so she would, for there are (I am sorry to say) a few men in our profession, who encourage such work, and advertise cheap sets of teeth. These foolish girls think that there is nothing so "perfectly lovely" as a set of false teeth, and, "they are advertised so cheap!" It is true they are cheap! (I mean the quality of the teeth!) However, in time these girls become wiser but their wisdom comes too late.

Clean Teeth.

It is of great importance that children, while very young, should be taught the importance of brushing their teeth at least twice a day, this will lessen greatly the danger of decay. Select for them a medium brush, neither too hard or too soft in the bristles. The brush should be small in size. A large brush is not fit for an adult much less for a child, as it fills the mouth, pressing against the lips and cheek and does not reach all parts of all the teeth, particularly the back molars, as well as a smaller brush. The most important time to brush the teeth is after the last meal, before retiring for the night. If food is allowed to remain between the teeth through the night it will be sure to injure them. It is during the quiet hours of sleep that the microbe has a chance to get in its most deadly work. During the daytime the mastication of food, movement of the lips and tongue, with the constant flow of saliva and the fluids you drink, prevent much harm being done. Again, in the morning the first thing when washing face and hands, the teeth should be

brushed. If the mouth is clean there will be a pleasure in taking the morning meal. There are many varieties of tooth powder and paste, some kinds are very injurious to the teeth. Your dentist will recommend some kind that will be good. Camphorated chalk is good, so is precipitated chalk, flavored with a little wintergreen. The dark green stain which so often collects on children's front teeth is a strong acid product and soon destroys the enamel if allowed to remain; besides this it is very unsightly. To have dirty teeth should be considered more of a disgrace than to have a dirty face; large numbers of teeth are lost, simply for want of being regularly cleaned. It is better to have this removed by a dentist, with a revolving brush and his engine, but if you cannot afford it, use a soft pine stick made thin on the end; place a little very fine pulverized pumice on a piece of glass or dish, add a little water, then standing before a mirror rub off the stain, being careful not to injure the gums. A goose quill is the best kind of a toothpick, wooden picks are generally too coarse, and are liable to injure the gums. Never allow your children to pick their teeth with pins, needles, pen-knife or fork; they injure the enamel of the teeth, as well as the gums. Many teeth are injured and broken by cracking nuts and biting hard candy. Women make a great mistake in using their teeth for biting off thread, instead of using a pair of scissors. Artificial teeth are often broken in this way. Untying knots with the teeth is another way of injuring them. If children see their mother do this, they will be sure to follow her example, not knowing that their teeth are of a poorer quality than hers and more likely to be injured in doing so. The teeth were not made for that kind of work, at the same time they should

be given plenty of good, solid food to grind, that is their mission. Unfortunately for the children of to-day they are fed on soft new bread, fresh from the oven, besides lots of fresh pastry that is soft and sticky, all of which is not only injurious to the teeth by not giving them grinding to do, but it is



This is another case where the under jaw protrudes. The under lip is too full and the upper lip drops in behind it. Note the sad, solemn expression on this young woman's face. You may be sure she does not spend more time before the mirror than is absolutely necessary. This cut shows also the kind of head gear necessary for her case.

also injurious to the stomach. How parents supposed to be intelligent, can give their children such stuff as I see in our city confectionery stores I cannot understand. Yet, this stuff that I would not

give to a dog that I valued, is what is in the greatest demand. I could understand children who only think of what tastes pleasant selecting such stuff, but parents, O, my! After seeing a mother buy a lot of this stomach-destroyer for her children, I questioned the young woman who sold it, as to whether she was fond of such pastry. Her reply was, "Not much." If I had a good dog I would not punish it by letting it have a piece. The various kinds of porridge are good food, but they do not give the teeth a fair show as it is swallowed without chewing. A good plan is to have the children eat toast with it. That not only gives the teeth something to do, but the food, not being eaten so quickly, gives the saliva a chance to mix with it before passing to the stomach, thus making it more easily digestible. I would not think of eating bread before it was at least one day old; if two or three, so much the better. It is impossible to keep the teeth healthy when using new bread.

The Candy Maker the Dentist's Best Friend.

The confectioner and candy maker are the physician's and dentist's best friends. The constant use of soft, sticky bread, pastry, and candy, which so many children buy, gives the physicians and dentists lots of work, as very few children use a tooth brush after eating. The sugar of the candy uniting with the starch of the bread and pastry that clogs between the teeth, in addition to the decayed matter makes a splendid, first class hot-bed for all the various microbes in the mouth, which multiply rapidly without hindrance. The mouth being the vestibule to the body they have free passage to the stomach and lungs, and are carried swiftly by the blood to all parts of the system to do their deadly work. As

these germs are thus kept in close contact with the teeth, they make quick work in their destruction. Some parents say they cannot afford to buy a tooth brush for each of their children, or pay a dentist to fill their teeth, yet they think nothing of giving their children money to buy candy to destroy their teeth. If they would require their children to put away half of their candy money for getting their teeth filled, no child, even among the poor (for their children are never stinted in candy) would suffer with toothache or lose a permanent tooth. The constant use of candies between meals is very injurious, not only in the way I have already pointed out, in reference to the teeth, but it also spoils the appetite for wholesome, nourishing food. Parents little dream that they are robbing their children of health and future happiness, by allowing them to be constantly nibbling candy. The children, poor innocent things, are the ones to suffer. Foolish mothers will often bribe their children to do what they want done by promising to buy them candy. Give a little tot a copper and then ask what it will do with it; the reply will be, "buy candy."

Candy Eaten Too Fast.

Children as a rule eat their candy and pastry too hurriedly, not giving it time to mix with the saliva that it should have. To see the haste they make to get it swallowed, it looks as though they had something very unpleasant in the mouth. This is a great mistake, and parents should correct the child while it is young. Walking along Yonge St. one day and passing by three young women, I overheard one of them say that she had bought a pound of chocolates and eaten them in twenty minutes. I said to myself, poor foolish woman, thirty or forty cents for

twenty minutes' selfish pleasure, only to be followed by a headache and indigestion. Had she only eaten a quarter of a pound a day, spending twenty minutes each time, she would have given herself four times the pleasure, and that without any bad results. Young children need instruction on this point, for they should get far more pleasure than they do, from what they eat.

People as a rule eat far too quickly when taking their meals. It was when sitting at restaurant tables I first noticed the hasty manner young men and lads swallowed their food, it could not be said they ate it. Two or three grinds between the teeth followed by a quick motion of the tongue, and then the food in the mouth, without being mixed with saliva, passed to the stomach, while another forkful of food was waiting to enter the mouth and pass through the same hasty process. They did not take more than half the time to finish their meal that I did, though they ate as much as I. The dessert was always the easiest and quickest to get rid of. Though I only paid the same as they did, I am sure I got more than twice the pleasure from the meal. Life is short enough at best, without rushing to the end in this way.

Give Your Children Candy.

Children should be given candy, not between meals, but after the meal with the dessert, then the candy if pure is healthful as well as pleasant to take. The food will digest better with it. The system requires a certain amount of sugar. If the teeth are brushed with plenty of water after, they will receive no harm from it.

Give Your Children Plenty of Milk.

Milk contains all the elements necessary for building up the system.

March 16th, 1911, I passed my seventy-second birthday. I am safe in saying that at that age I have better teeth than ninety per cent. of school children thirteen, or fourteen years of age. I have only lost one of my sixth year molars, and that I unfortunately broke a short time ago. I attribute my blessing of good teeth to the fact that milk was used largely in my diet all through childhood, and up to thirty years of age; also to the fact that I was fond of crusts of bread, and very seldom ate new bread, pastry or candy. Three times a day, at each meal I invariably used milk in some form or other, and often had some to drink between meals. Fortunately, we had our own cows and therefore I was never stinted. My father used to buy fruit for us children, because he thought it good for us, but never candy.

If cold air or cold water makes a tooth ache, it is a sign that the nerve-pulp is exposed, or nearly so, and it requires the attention of the dentist at once. If a tooth aches on taking hot drinks or on going into a hot room or after going to bed, it is a sign of inflammation (or what is more commonly known as "**ulceration**") which is a sign that the tooth has advanced another stage for the worse. If you are wise you will not wait a day with a tooth as described without visiting a dentist. If your gums and face begin to swell, then your case is still more critical.

In the first case the tooth could be saved by capping the nerve-pulp before filling. In the second case the nerve-pulp would require to be destroyed, which will cause additional pain and at the same time be an additional expense. In the third case you will not only have to endure a great deal of unnecessary pain, but there will be the danger that the abscess which is forming will break out on the face

like that of Fred Gee's and the others that I have described; and then to that will be added the utmost certainty of losing the tooth unless you go to some very skilful dentist.



This cut shows how this young woman's features have been disfigured, her parents having neglected her teeth in childhood, allowing them to come in all jumbled up every way. The first teeth not being removed at the right time crowded the permanent teeth out of place. To regulate them now at her age means not only a much greater expense, but also a lot of her valuable time. Yet it is better to be done than go through life thus disfigured.

Facial Neuralgia and Its Cause.

Many persons suffer for weeks with neuralgia or ear-ache, spending large sums of money for medical treatment, never suspecting that their trouble is caused by a dead tooth or root. If I had time to write and you had time to read, I could give very

many interesting cases of this kind. Two, however, will suffice.

In the year 1880 a man about thirty years old was sent to me by a physician to see whether his suffering from neuralgia was caused by his teeth. The man said, "the doctor has been treating me for neuralgia for over a month, but could give me no relief, and has sent me to you to see if the pain is from a tooth, but as I told the doctor, I am sure there is nothing the matter with my teeth. You may look at them though, if you like. What I suffer night and day with this neuralgia is something awful. He seated himself in the operating chair; with my mouth mirror I began the investigation, commencing with the lower teeth. I found every tooth to be perfect. I then commenced with the upper teeth, but could find no decay in any of them, and was coming to the conclusion that the man was right, that the teeth were not the cause of the trouble. He had a most perfect set of teeth. As I was admiring his beautiful set of teeth, and at the same time puzzled that I had not found the cause of trouble, I noticed there was one of his wisdom teeth missing. I asked him if he had had it extracted. He said "No, I never had the toothache or a tooth extracted." That put me on the scent. The tooth was missing and had not been extracted; the probability was that part of it was there still and was giving him the pain. The molar tooth in front of it was very large and long, making it difficult to see behind it. I succeeded, however, and found a small root, which with some difficulty I succeeded in removing, and with it I removed the pain at once.

In the year 1901, a woman came to my office, saying she had been suffering for a long time with the toothache in an upper tooth, and which she wished

me to extract. Taking a seat in the operating chair she put her finger on the offending tooth, saying, "That is the one." I examined it and found it perfectly sound. I said, "That is not the tooth, it must be some other tooth," but she insisted it was the one that gave her pain; it was a left superior molar. Feeling sure she was mistaken, I began examining the other teeth, beginning with the upper teeth on that side, continuing around to the other side, but found none that I could think would give her trouble. I then began examining the lower teeth, beginning at the back tooth on the left side, where she said she felt the pain. When she found I was examining the lower teeth she was much dissatisfied, but when I continued around the other side of the mouth to find the cause of the trouble, she became very angry and said, "So, do you think I am a fool and do not know what tooth it is that ached; I have not suffered all these weeks, night and day without knowing where the pain is." In the meantime I had reached the second bicuspids on that side and found it badly decayed, down nearly to the gum. I said, "That is the cause of your trouble." She left the chair, saying, "I am not fool enough to believe that a tooth on the opposite side of the mouth and in the opposite jaw is the cause of my suffering. I will go to some other dentist who will extract the tooth I wish taken out." I replied, "Alright, if you are determined to have that good tooth taken out, some one else will have to do it for you; certainly I won't." I said, "I know that my statement as to the trouble being in a root on the other side of the mouth and opposite jaw seems ridiculous, but I know I am right. That root is no use to you, even if it does not ache, it should be removed to prevent it decaying the teeth on each side of it. Let me take it out, and

if it does not give you relief where you have been suffering, I will not charge you anything for extracting it." She took the chair again, saying, "I know you are wrong, but as you say, the root should be extracted to prevent it injuring the other teeth, I will let you do it." A minute after she sprang from the chair and shouted, "It's gone." Yes, the root and pain had left her jaw together in an instant. A happier woman than she, it would have been hard to find.

School Children's Teeth in 1911 as Bad as in 1896.

The following description of school children's teeth in 1911, shows them to be in as bad, or a worse condition than they were in 1896, sixteen years ago, when I first published this book. Note in how many ways the description is almost a repetition of what you have just read. 95 per cent. decayed teeth (not confined to the poor), mouths repulsive with filth, jagged roots, frequently four or five abscesses in a mouth, other children's health injured, etc., etc. This very interesting extract is taken from a paper read before the Academy of Medicine in Toronto, by W. H. Doherty, D.D.S., L.D.S., Oct. 27th, 1911, and published in the Dominion Dental Journal:

A systematic study of mouth conditions among school children on this continent has revealed the alarming fact that only three or four per cent. have sound teeth, and that dental caries and associated diseases of the mouth constitute an evil that is undermining the health of the nation. These statistics only bear out what has been found in Great Britain, Germany and other countries showing that dental disease is almost universal in its distribution among civilized peoples, and constitutes a factor in

ill-health and disease second to no other which affects the human race.

When I state that in two schools in this city about 95 per cent. of the children were found to have decayed teeth, the prevalence of the condition can be readily grasped. It is impossible for me, however, to give this body any adequate idea of the horrible conditions found in the mouths of a great many school children. They are conditions which have to be seen to be appreciated. Mouths repulsive with filth and decay, hypertrophied and inflamed gum tissue, jagged and suppurating roots, cavities filled with "mouth garbage," teeth the root canals and pulp chambers of which contain the dead and putrefying remains of the artery vein, nerve and connective tissue, which formed the pulp of the tooth; frequently as many as four or five alveolar abscesses veritable pus factories, pouring continuous streams of pus into the mouth and stomach of the child; teeth covered with green stain and fermenting food particles, and in many cases as a direct result of this mass of infection a throat blocked with adenoids and enlarged tonsils and a tongue giving striking and abundant evidence of the resultant indigestion and constipation in the intestinal tract.

This is not an exaggerated picture. Anyone will recognize it who has had an opportunity of examining school children's mouths. Neither is it confined to the poorer schools. Oral sepsis is no respecter of persons. Thousands of cases of which the foregoing is a faithful picture may be found in the best city schools, both here and elsewhere. I have seen conditions in the mouths of children that you would step around if you saw on the street; conditions as pitiful as they are horrible, accompanied as they are in almost every case by evidences in the physique





and face of the child of mal-nutrition, septic poisoning and dangerously impaired vitality.

The child is weakened by malnutrition and septic poisoning until it falls a victim of one of the infectious diseases.

“An unclean mouth is the prize bacterial garden of the world.” Cavities in decayed teeth form natural incubators for the growth and development of pathogenic germs, over twenty varieties of which have been found in the mouth. A child with its vitality lowered from malnutrition and septic poisoning, and its mouth a mass of uncleanness and decay, the breeding ground of disease organisms becomes a dangerous factor in the health of the community. There is not only the danger that the child itself fall a victim of one of the specific diseases, the germs of which may be found in the mouth, but that, itself free from clinical evidences of the disease, it may be scattering disease broadcast among those with whom it comes in contact. A few thousand children with mouths full of uncleanness and disease are a more serious menace to the community than a much greater amount of uncleanness in other situations that are already covered by health by-laws. The time is coming when this fact will be recognized in this country, and when children will be excluded from school who have uncared-for and unclean mouths. A school child at present is expected to have his shoes clean, and rightly so, while its mouth may be just as unclean as an uncared for mouth can be. It is unfortunate for the race that conditions were not reversed, with hygiene of the mouth preceding that of the boots.

GOOD WORK TO BE STOPPED.

City is Pressing Dr. Adams for Payment of Taxes on Dental Hospital.—Short Sketch of the Philanthropist's Kindly Actions.

The Mail and Empire, May 12th, 1899.

Many of the poor children of St. John's Ward, some from the Boys' Home and the Girls' Home, with their parents and friends, assembled yesterday afternoon at the Dental Hospital of Dr. J. G. Adams to practically bid him good-bye, since it is altogether likely that this free dental hospital will be closed up. The reason for the discontinuance of the institution on a free basis is that the city is pressing Dr. Adams for the amount of taxes due on the large building he occupies at the corner of Elm and Teraulay Streets. Two years ago this Toronto philanthropist bought the building, and since he was treating poor patients without charge, he was given to understand at that time by the civic authorities that his place would be exempt from taxation. However, things have changed, and yesterday the bailiff was sent in to seize the goods there in payment of the taxes.

Twenty-nine years ago yesterday the doctor and his wife came to Toronto to engage in missionary work, which they both felt they had been called to do. His wife died some years ago, but still the energetic helper kept up his good work. He employed at times seven and eight operators, and the amount of aid he has given to Toronto's poor gratuitously is enormous. His Sabbaths the doctor has spent in doing missionary work, and finding poor people who needed the assistance of himself and operators.

The doctor justly claims that he cannot continue to look after Toronto's poor and still pay the city taxes on the building where his much-needed hospital is situated. The bailiff has arranged to give the doctor two weeks in which to settle the account, but the generous-hearted dentist cannot afford to spend his private funds to pay these taxes, which amount to about \$200.

The children sang songs yesterday, gave recitations, and carried out a programme, all meant to honor the man who had been such a friend to them.

May 11th, 1899, will go down in history as the date of the blackest crime that was ever perpetrated against poor, defenceless, suffering childhood, by any civilized people.

The City Left Without Excuse.

Though I gave copies of my book to Mayor Shaw and other city officials, and they received a strong protest from the dental society and Dr. F. C. Mewburn, Toronto's oldest physician, against the hospital being taxed, they not only seized, but sold every article in the hospital. The last of the eight operating chairs they sold from under a poor old sick soldier, who having no money, had come in for relief.

The City's Act of Sacrilege.

Though entitled to exemption like the churches and other missions, they seized and sold everything belonging to Christ's Mission Hall, on the second flat, including organ, Bibles and hymn books. For a further account of the strangest story, see the larger edition.

THE HISTORY OF CHRIST'S DENTAL HOSPITAL IN TORONTO.

Its origin, work, and final destruction by the city is the most unique story of modern times, and will be found in the larger edition, a brief account only being given here.

That facts are stranger than fiction you will admit after reading the history of Christ's Dental Hospital in Toronto. It is a story of Jesus and his love for suffering humanity. No other incident so fully proves the oft-repeated statement in the Bible, as to God's foresight and fatherly care for the physical welfare of mankind as it does.

God Preparing to Fight the "Tooth Plague."

It shows that God, foreseeing this alarming change in the quality of children's teeth, and that, coming as it would at the most critical time of life, the growing period of childhood, it would sap the very foundation of human life, unless systematically and persistently fought. God Himself, therefore, interposed to prevent such a calamity, thus becoming the first actor in a strange drama, which should astonish the world and bring glory to his name, as well as bless all mankind down to the end of time.

An Unwilling Historian Placed in an Unjust Position.

My mother, when I was a child, taught me that unless I wanted to say something good about a neighbor, I should say nothing at all. This principle was so instilled into my very being that it makes it heart crushing to be forced to record anything other than what I would consider to be a credit to my fellow citizens. Nothing but the force of circumstances

could have compelled me to record the facts connected with the history of Christ's dental hospital in Toronto.

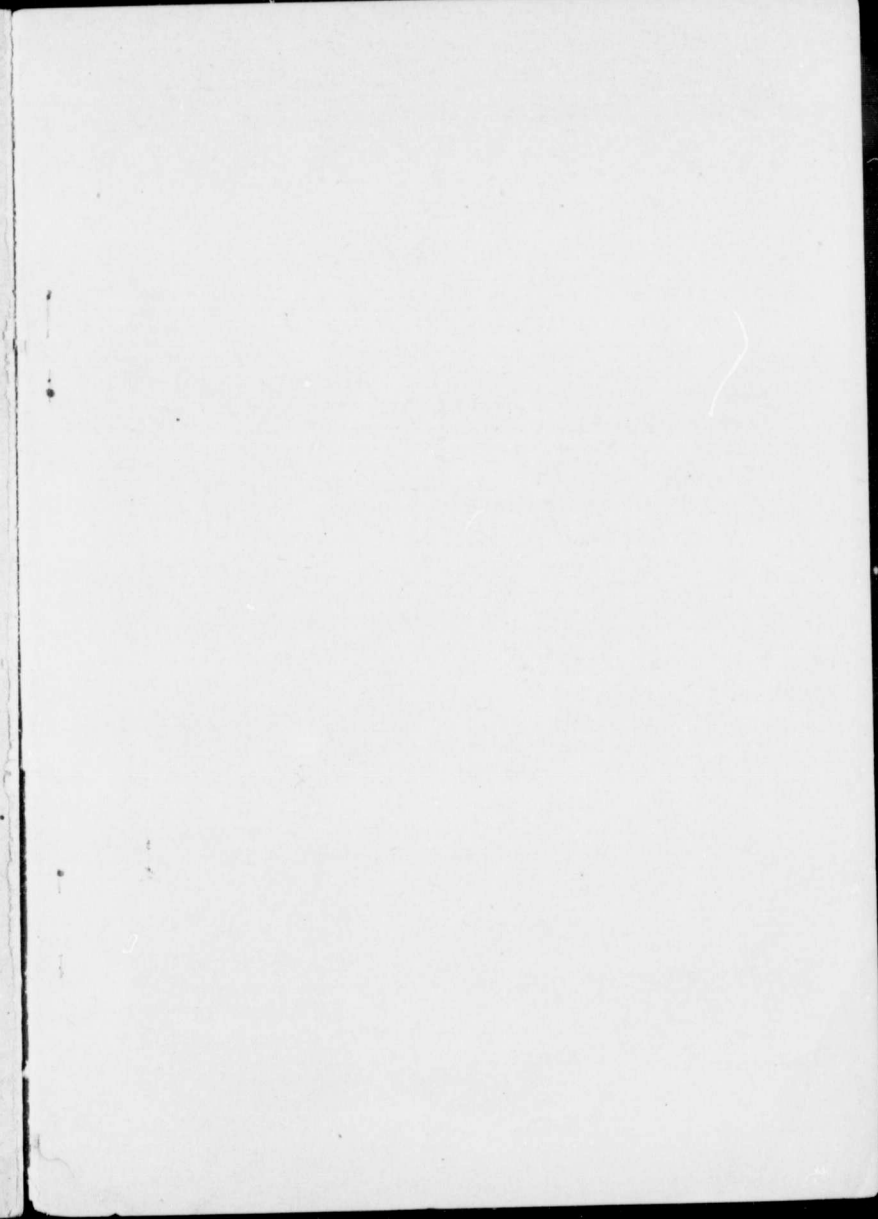
A Strange Prediction Fulfilled to the Letter.

The following prediction by the late Rev. Dr. Wm. Parker, who was my pastor, is the only explanation I can give for the strange, incredible experience I have passed through in Toronto. He predicted that God would allow the Christian people of Toronto to destroy my Mission in Toronto and force me out into mission work for the poor of other cities, the same as He allowed the Church of England to force John Wesley out the world over in the interest of the neglected people of his day.

May 11th, 1912.

Dr. Parker's prediction is now literally fulfilled to the "*letter. Thrust out.*" No other words can fittingly describe the situation. The experience of the past thirteen years, since giving the past account *beggars* description. Yet God is bringing good out of it, not only for the financial benefit of myself and family, but also for the good of the school children and poor everywhere.

Dr. Doherty's description here given of the wretched condition of the teeth and mouths of the children in the Elizabeth St. School and of others, gives only a faint idea of how the children have been injured by the city's inhuman act in closing CHRIST'S DENTAL HOSPITAL, where for many years they and others had been cared for free (see page 54), and the great contrast in their condition. *Surely it is no credit to the people of a University City to force me to send out to the world such a record.*



PETITION

TO THE MEMBERS OF THE SCHOOL BOARD:

Gentlemen,---Facts have been placed before us as parents, shewing beyond doubt

- 1st.---That all over the world a most serious and alarming change has taken place in the quality of children's permanent teeth of the present day, they now coming in soft and chalky, and more liable to decay quickly.
- 2nd.---That ninety-five per cent. of all the school children have decayed teeth large percentage of which are neglected and allowed to go to destruction soon after coming in, the parents not being aware of this change, or that such teeth are really permanent.
- 3rd.---That such terrible destruction of the permanent teeth at the most critical time, the growing period of childhood, must result in very serious injury to the health of the children, and sap the very foundation of human life if allowed to continue.

DENTAL INSPECTION THE REMEDY.

The examination of School Children's Teeth, either by the Family Dentist or a Dental Inspector, we believe, to be the practical remedy for this fast increasing disease. As the legislature has given you the power to adopt this system, we respectfully request you to do so.

Sincerely yours,

Parents Name

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Address



CHRIST'S DENTAL EDUCATIONAL INSTITUTE,
55 Elm St., one block from Yonge St.