

**Our teeth : how to take care of them / by Victor C. Bell ; with an introduction by Ossian H. Lang.**

**Contributors**

Bell, Victor C. 1867-  
Augustus Long Health Sciences Library

**Publication/Creation**

New York : Young America Pub. Co., [1901], ©1901.

**Persistent URL**

<https://wellcomecollection.org/works/b2n9pruz>

**License and attribution**

This material has been provided by This material has been provided by the Augustus C. Long Health Sciences Library at Columbia University and Columbia University Libraries/Information Services, through the Medical Heritage Library. The original may be consulted at the the Augustus C. Long Health Sciences Library at Columbia University and Columbia University. where the originals may be consulted.

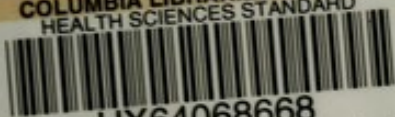
This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

COLUMBIA LIBRARIES OFFSITE  
HEALTH SCIENCES STANDARD



HX64068668

RK61 B412 1901a Our teeth : how to t

# TEETH

## How to Take Care of Them

**RECAP**

By Victor C. Bell A.B.:D.D.S



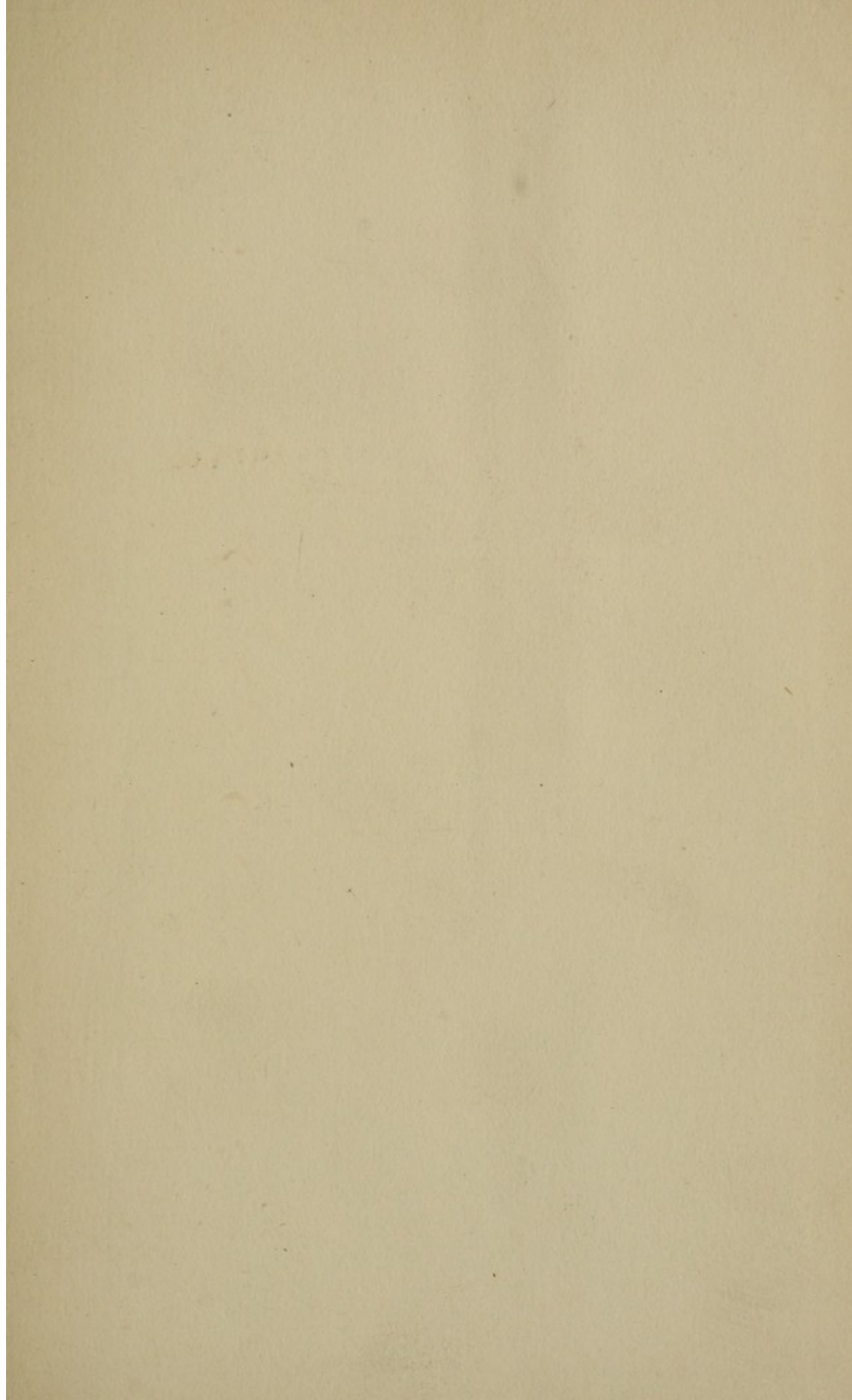
PRESENTED TO THE COLLEGE OF  
DENTAL AND ORAL SURGERY OF  
NEW YORK BY THE DEAN  
WILLIAM GARR, M.D. D.D.S.

RK61 B412  
Columbia University 1901  
in the City of New York

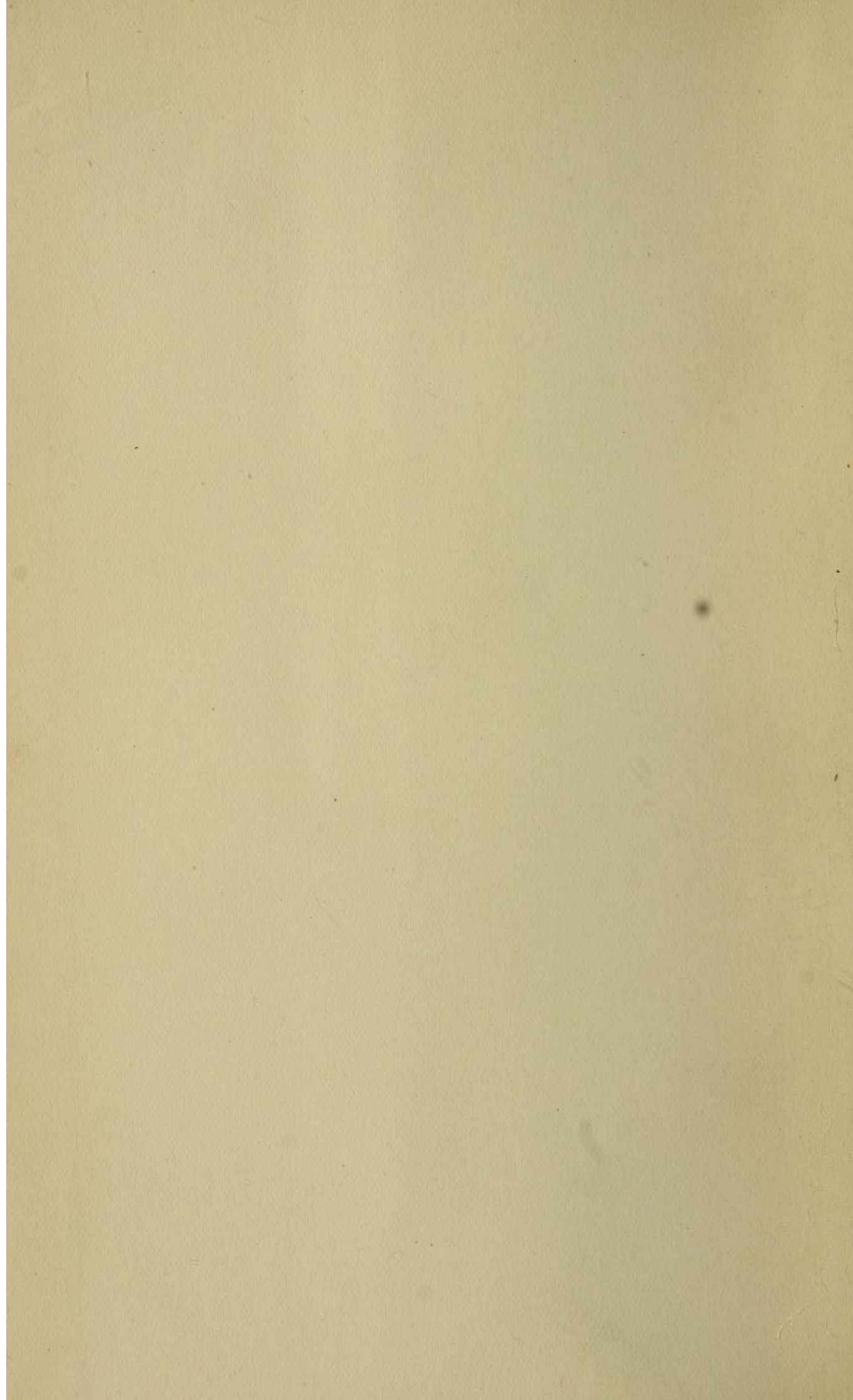
School of Dental and Oral Surgery



Reference Library







# Our Teeth:

HOW TO TAKE CARE OF THEM

BY

VICTOR C. BELL, A.B. D.D.S.

With an Introduction by OSSIAN H. LANG

---

Adapted for the Use of Elementary Schools as Text-book  
or Supplementary Reader

---

Third Edition.—Carefully Revised

YOUNG AMERICA PUBLISHING COMPANY  
111 FIFTH AVENUE, NEW YORK



RK61

B412

1901 a

Copyright, 1900 and 1901  
VICTOR C. BELL, M.D., D.D.S.

ROONEY & OTTEN PRINTING CO., NEW YORK.

## INTRODUCTION.

Physiology has become one of the fundamental studies in the elementary schools. In connection with it is given instruction in the simple laws of hygiene. Special attention is devoted to the evil effects of alcoholic beverages and narcotics. All this is commendable and encouraging to the friends of educational progress. The well-being of the body cannot be too highly regarded in the making up of school programs.

One logical result of the more intelligent interest of the people in matters concerning the health of children is the introduction of expert medical inspection of the schools. Thus far this inspection has confined itself largely to the sanitary conditions of school buildings and the general health of pupils. If there has been any specialization it has been examination into the condition of children's eyes and ears, and perhaps also of the nose and throat. One important factor seems to have been largely disregarded, and that is the need of a periodical dental inspection. The principal reason for the oversight is probably to be found in the lack of interest on the part of the average physician in the health of teeth. This field has long been left entirely to the dentist, and the latter has not, at least in the United States, been made a member of the boards of medical examiners for schools.

In Germany, France, Belgium, Sweden and Japan, the importance of the examination of school children's teeth by a competent dentist has long received practical recognition. In Great Britain the question has been agitated for some years, and all signs point to a speedy adoption of dental inspection and the teaching of the proper care of the teeth at least in city schools. The usual plan is to employ dental surgeons to make periodical examinations of every pupil. Records are kept and parents are advised concerning proper care, or free treatment is given to the poor. A similar system is very much needed in this country. State, county and municipal examiners of children's teeth must become a part of the public school machinery.



Meanwhile instruction in the proper care of the teeth ought to be made an obligatory part of the elementary school course in physiology and hygiene. So much depends upon cleanliness and health of the mouth and teeth that the reasonableness of this proposition will be at once recognized. The decay of the temporary teeth may work lasting injury. Digestion is frequently impaired by imperfect mastication due to defective molars. The presence of microbes bred in particles of food left between the teeth is often the source of serious stomach troubles. Nervous difficulties of various kinds can be traced to neglect of the teeth. And the inference is by no means far-fetched that the development of serious lung diseases has resulted from a neglected mouth.

There is still a weightier reason for legal insistence upon proper instruction in the care of teeth at school. Many thousands of dollars are expended each year for systems of school ventilation. The people cheerfully bear this burden of expense because they are convinced of the need of keeping the air of rooms in which children are brought together as pure as possible. But strangely enough school authorities have thus far overlooked the important fact that the pestiferous odors issuing from neglected mouths are rendering the problem of ventilation almost impossible of solution. How much money—and what is greater, how much health—might be saved by intelligent attention to the laws of dental hygiene!

In urging the claims of the special instruction of children in matters relating to the care of their teeth, I frequently meet the objection that such specialization will result in loading the course of study with all sorts of subjects of physiologic import; that some will want lessons on the care of the eye, others will want to have the structure of the ear taught, etc. These arguments only furnish additional proof of the prevalent ignorance relative to the importance of the health of the teeth. To begin with, the value of good eyes and good ears is pretty generally recognized. Regular tests of sight and hearing are made in a large number of schools. Yet difficulties and diseases of these organs affect, as a rule, only the possessor. On the other hand, neglected teeth are breeding-stations for poisons and diseases with which the breath vitiates the air that others must inhale, and thus there is a danger affecting the health of many. Furthermore, it is not necessary to take up much time with the subject of tooth hygiene. One hour a month for a year in the primary school ought to be sufficient to cover the ground as marked out in



this book. That certainly is not asking much. If, however, the course is so crowded that there seems to be no room even for so small a demand, then something of less importance should be eliminated. Part of the time given to the so-called "supplementary" reading might be utilized to advantage. The wisdom of making whatever sacrifice is necessary to introduce lessons on the care of the teeth is too evident to need further discussion.

The lack of proper text-books has long stood in the way. But this will no longer furnish an excuse for the omission of this important subject from the school programs. The present book is well adapted for schoolroom use and the reading of children. It was prepared under the direction of Dr. Victor C. Bell, of New York, author of "Popular Essays on the Care of the Teeth and Mouth," who has for many years devoted himself to the popularization of the laws governing dental hygiene. He was assisted in the writing of this book by a teacher of successful experience and an intimate knowledge of children and young people generally. The subject has been enlivened with bright illustrations which children will enjoy. Every chapter has been submitted to the critical judgment of teachers before its final adoption. No care has been wanting to produce a book that will stand every expert test on the teacher's side as well as that of the dentist. Summaries and questions are given at the end of every chapter to fix in the pupils' minds the things to be remembered. Especial attention is also called to the summaries given in the appendix.

I take pleasure in commending this work to the kindly consideration of teachers, school officers and parents. It has a worthy mission, and will, it is hoped, lead the way to an increasing respect for the laws of health.

OSSIAN H. LANG.

*New York.*



"A sound tooth is of more value than a diamond."—*Cervantes*.

## HOW TEETH GROW.

WHEN a little baby comes into the world it has not a single tooth. If you could look into a baby's mouth you would see nothing more than a little pink tongue and two soft rosy gums. When baby is five or six months old it begins to bite its playthings, its rattle or its rubber ring; that is because the gums are growing hard and sore where the teeth will soon come through.

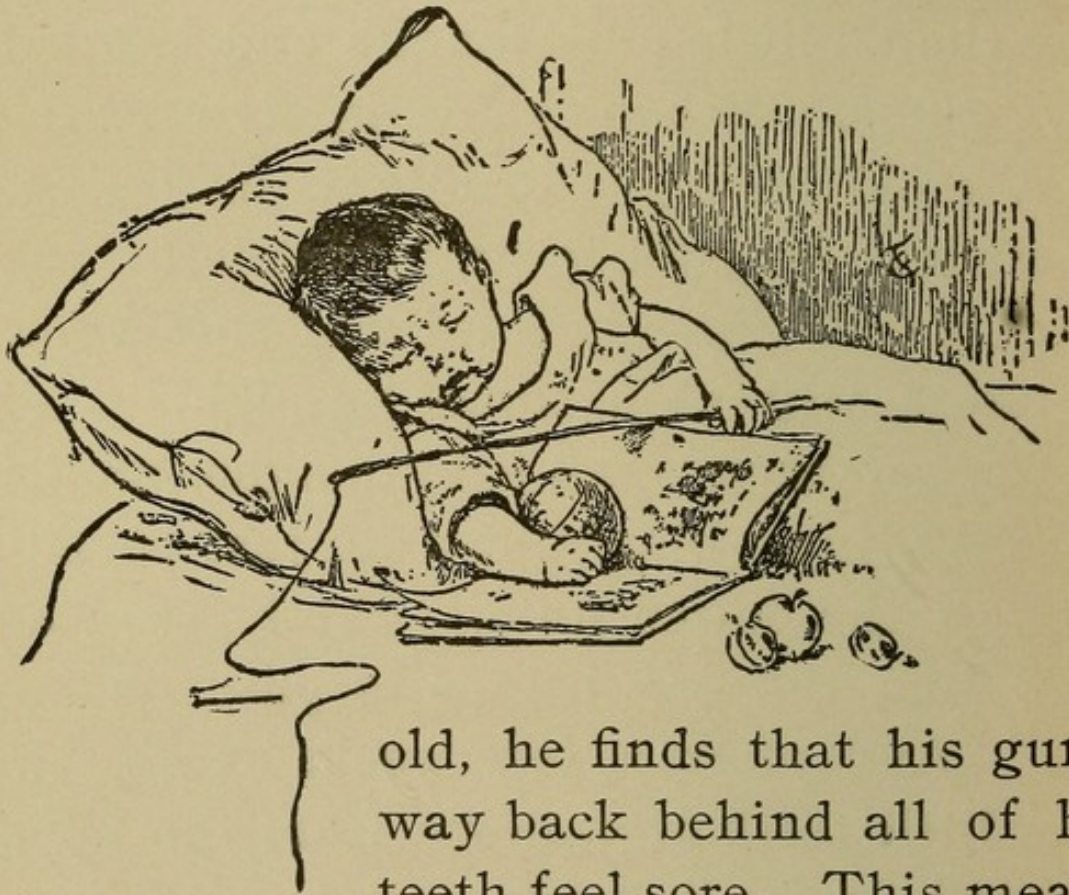
Some morning when baby laughs, mother will see a tiny white front tooth just peeping through the lower gum. Pretty soon another like the first begins to push its way out. And after a few weeks more, two other little teeth grow down from the upper gum to help the first two teeth to bite.

When these teeth have grown pretty well four more come out. Now baby can eat a bit of bread and butter, biting off the pieces almost as well as sister or brother. And so the



teeth keep coming until there are twenty in all. These are called the baby or milk teeth.

After the baby teeth have all grown the little child has a rest of three or four years. But by and by, when the baby has grown to be a big boy or girl and is about six years



old, he finds that his gums way back behind all of his teeth feel sore. This means that four more teeth are pushing their way through, two upper and two lower teeth. They are called the six-year-old teeth.

After these four teeth are quite grown, our boy or girl has to learn to be very brave.



He must lose all his little milk teeth. Their places will be taken by the permanent teeth which must last him as long as he lives.

It takes about six years to change the baby teeth for the permanent ones, and if you lose your first two front teeth at the age of five, it will take until you are about twelve years old before you have a mouth full of second or permanent teeth.

The last four teeth to grow are called wisdom teeth. They do not make one wise. They are so named because they do not come until people are grown up, and so are supposed to be very wise.

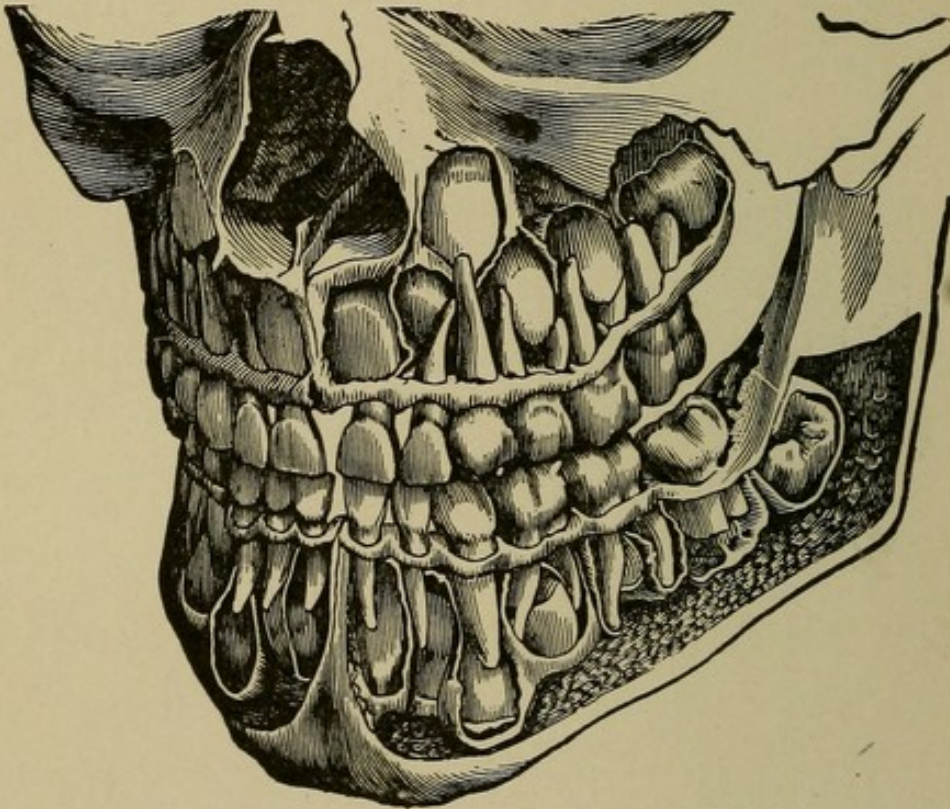
When all the teeth are grown you will have thirty-two, sixteen in the upper jaw and sixteen in the lower one. Very few people have the full number. That is because most of them do not take proper care of their teeth. Many do not know how to do it. You will learn from this book how to keep your teeth in good health and nice looking.



## POINTS TO REMEMBER.

A baby's teeth begin to come through the gum when it is five or six months old.

When the child is two years old it has twenty baby or milk teeth.



Jaws of a Six-year-old Child, the Outer Plate of Bone Removed to Show Germs of Permanent Teeth.

The child begins to have its permanent teeth at the age of six years.

When the child is twelve years old it has twenty-eight permanent teeth.

The last four teeth to grow, the wisdom teeth, usually come after a person is twenty years old.

### QUESTIONS.

1. What kind of teeth has a tiny baby?
2. When do the first teeth grow?
3. What are they called?
4. How long does it take for all the milk teeth to grow?
5. What becomes of the milk teeth when the permanent teeth come?
6. What are the teeth called that grow the very last of all?
7. How many teeth do grown-up people have in all?



## NAMES OF THE TEETH.

OPEN your mouth very wide and look at your teeth in a mirror. Are they all alike? You will notice that your front teeth are flat and thin. The teeth farther back in the mouth are thicker and stronger.

The flat front teeth are called single teeth. The larger ones farther back are the double teeth.

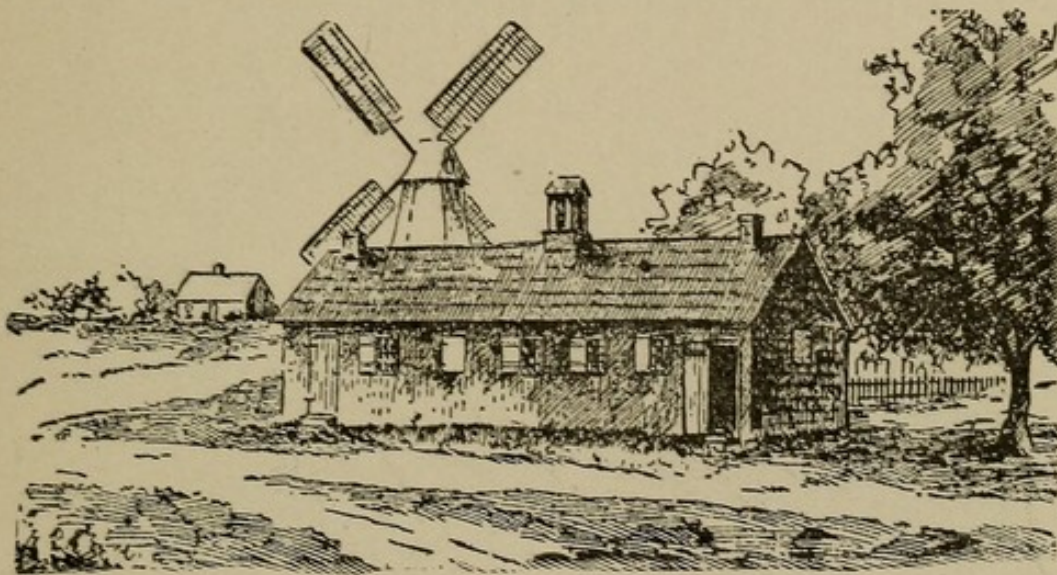
Now both front and back teeth have names of their own. These are rather long but you can remember them if you try. The first four teeth nearest the front, both upper and under, are called incisors. This sounds like a very hard name. But you will not forget it easily because it is almost like scissors. Can you guess why?

The scissors are made to cut with, you know. And so are the incisors. They are called incisors or cutting teeth, because they cut into the apple or piece of bread that we



want to eat. You can see this for yourself. Just as soon as you close your teeth together to take a bite of the apple these four incisors cut right into it at once.

The twelve teeth farthest back are called molars. This name you can understand if you think of miller. You know, of course, that the miller makes his living by grinding



corn. Now just remember that our molar teeth are the ones that grind or chew what we eat.

Three of the molars grow on each side of the upper and also the lower jaw, so making the twelve in all.

In front of the molars are the bicuspid.



As there are two bicuspidids on each side of the jaw, there must be eight in all. Count and see if you can find all eight. You can tell them from the others because each bicuspid has two points. And that is why they have



their long funny name. For bicuspid means two pointed.

The third tooth from the front on each side, upper and under, is the canine tooth. The word canine means dog. You know



that a dog has four large, pointed teeth made so that he can tear his meat and crush the bones. Now our canine teeth are more pointed than the rest and are shaped somewhat like the dog's. That is why we call them canine or dog's teeth.

Now if you cannot remember just which tooth is which, you can at least tell the four names, incisors, canines, bicuspids, and molars.

This is the order in which the grown-up teeth come. The first molars grow when the boy or girl is about six years old. Then come the eight incisors, then the eight bicuspids, then the canines, and last of all the other molars. The last four molars are the same as the wisdom teeth, and these we do not have till we are really grown-up.

Would you like to know why some of the teeth are single and some double? Let us see if you cannot tell for yourself. If somebody gives you a nice juicy apple how do you begin to eat it? You take a bite, of course. Now what teeth did you use to bite



with? You know, if you think a minute, that they were the front ones. Can you see now why the front teeth are thin and flat? They are made in the best way for biting. When you had a mouthful of the apple you chewed it with the back teeth, did you not? So the back teeth are made for chewing and are large and square so that we can chop the food fine enough to swallow.

.8

#### POINTS TO REMEMBER.

The front teeth are flat and thin. They are called single teeth.

The back teeth are larger than the front ones, and are called double teeth.

The eight teeth nearest the front are called incisors.

The twelve teeth farthest back are the molars.

In front of the molars are eight bicuspid.

The third tooth from the front on each side is a canine tooth.

The front teeth are made for biting, the back teeth for chewing.

## QUESTIONS.

1. What two kinds of teeth do we see when we look at our mouths in a mirror?
2. What are the teeth right in front called?
3. Why are the very front teeth called incisors?
4. What are the teeth way back in the mouth called?
5. Why are the teeth farthest back called molars?
6. What are the teeth in front of the molars?
7. What does the name bicuspid mean?
8. Where are the canine teeth?
9. Why are the canine teeth so-called?
10. When do the teeth grow and in what order?
11. Why are some teeth single and some double?



## WHAT TEETH ARE MADE OF.

LOBSTERS like to fight. Sometimes they fight each other so hard that a claw is broken off. This is not so bad for the lobster as you might think, for a new claw will grow to take the place of the old one.

But people were not made like lobsters. When a human being loses a tooth or a finger he can never have one grow in its place again as long as he lives.

When the teeth grow twice in our lives, it would seem as if they at least might grow a third time. But they do not; we can never have a third set of teeth, except that we can have false ones put in by the dentist.

The materials of which the teeth are made are enamel, dentine, cementum, and pulp. Do you believe you can learn to remember these four names?

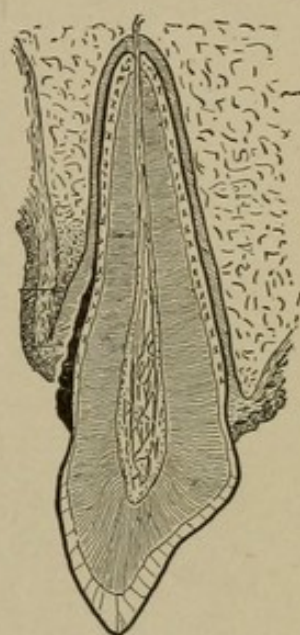
The outside of the tooth, the part that is seen when we talk or laugh, is called the



crown. The crown is covered with enamel. You can easily remember the name if you keep in mind that enamel means a covering, enamel covers or coats the tooth.

Enamel is very hard, much harder than bone. It is smooth and shiny, and almost white. It is made hard so that we may chew without breaking our teeth.

The part of a tooth that we see is really only about one third of the whole tooth. There must be some way of keeping it firmly in place, so a tooth has one or more roots. These are all inside the jaw. The roots are in very tight.



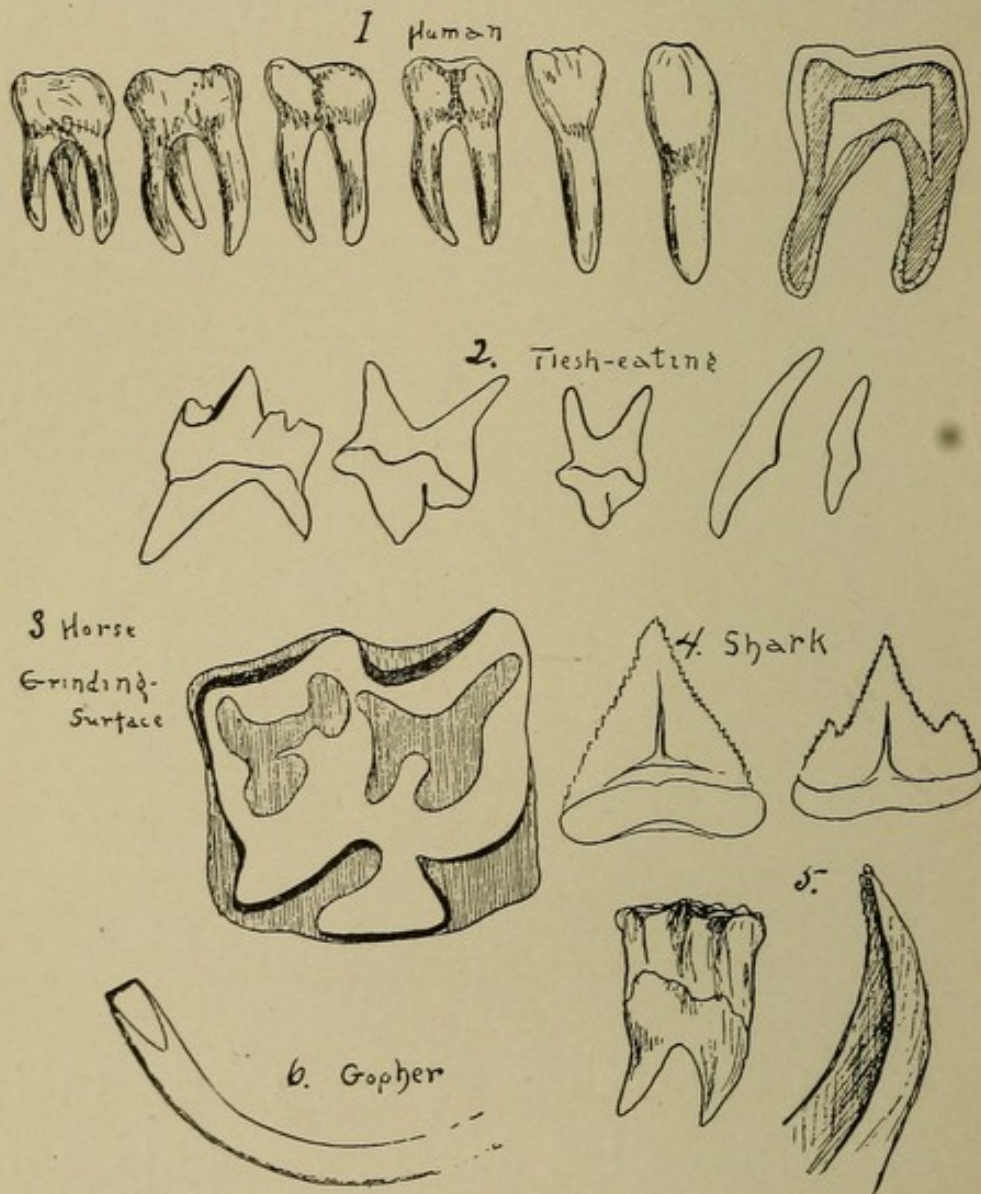
Tooth Cut in Half.

That is why it hurts so much to have a tooth drawn.

The main substance of the tooth, including the root, is called dentine. This forms the whole inside of every tooth and is pretty hard, though not nearly so hard as enamel.



The root is covered with a thin layer of cementum. This is over the root just the same as the enamel covers the part of the tooth outside the gum.



If the enamel, the dentine and the cementum were all there was of the tooth we should never have toothache. But then we



should not be able to keep our teeth more than five or six years. So through the center of the dentine is a canal filled with pulp. The pulp has nerves and blood-vessels running through it just as the nerves and blood-vessels run through the hand or the arm.

You can see how the blood-channels go through the hand if you look at the blue veins. You can find the nerves by pricking the skin of your hand with a pin. As soon as you touch a nerve you will feel pain. So it is with the nerves of the teeth. If you ever have toothache you may be sure that a nerve of the tooth has been hurt in some way.

The nerve is sensitive. That means it is very easily hurt. The nerve must therefore be treated well or it will punish the tooth by making it ache. If the tooth is not well taken care of it decays. This leaves the nerve open to the air and the tooth begins to ache. Or a little candy is eaten and the exposed nerve begins to show that it does not like much sweet stuff.



The substances from which the tooth is made, that is the dentine, enamel, cementum and pulp, are formed of two kinds of matter. The tooth is almost all mineral matter (lime), something like shell or stone. But there is also a little animal matter which is used for the blood-vessels and nerves.

#### POINTS TO REMEMBER.

Teeth have four main parts, enamel, dentine, cementum and pulp.

The main substance of the tooth is dentine. This makes up the crown or the part outside the jaw, and the root.

The crown of the tooth is covered with enamel, the root is covered with cementum.

The opening inside the dentine is filled with pulp.

The pulp has nerves and blood-vessels passing through it.

These tooth substances are animal and mineral, with more of the mineral than animal.

## QUESTIONS.

1. What happens to a lobster if he loses his claw ?

2. How many sets of teeth can a man grow ?

3. What are the teeth made of ?

4. What does the word enamel mean ?

5. What part of the tooth is covered with enamel ?

6. What keeps the tooth in place when we bite or chew ?

7. Where is the root ?

8. Where is the dentine ?

9. Where is the cementum ?

10. With what is the inside of the tooth filled ?

11. What is there in the pulp ?

12. What hurts when we have a toothache ?

13. How can we keep our teeth from aching ?



## WHAT TEETH ARE FOR.

HAVE you ever watched a robin hunt for his breakfast? He runs along on the grass until he spies a fat earthworm. He picks up the worm, swallows it alive and is all ready to look for another. Even the baby robins eat worms right down whole.

They do not need to chew their food, for they have bits of sand and tiny gravel-stones in their gizzards that cut and grind the worms and bugs into very small pieces.

Many birds eat gravel and sand for cutting up and grinding their food to get it ready for digestion.

That is why birds pick up bits of gravel and swallow them as if they liked them. We should think we were pretty badly off if we had to eat a spoonful of sand every day. So we have teeth to help us cut our food into small pieces instead, and we are



ever so much better off than the birds. Do you not think so yourself?

As we chew our food we mix it with the saliva in the mouth. This saliva helps to digest the food after it has reached the stomach. And that is the reason why children should learn to eat slowly and chew their food a long time before they swallow it. If it is not chewed well, it does not digest as it should and then we may get sick.

Have you ever noticed that a dog keeps on gnawing his bone after the meat is all gone? This helps to keep his teeth clean and strong. In just the same way our teeth are made strong by chewing. People who bolt their food whole are apt to have black unsightly teeth, and to lose them young.

So you see there are several good reasons for chewing our food well before swallowing it.



## POINTS TO REMEMBER.

Our teeth are given us for chewing our food so that it may digest.

Food as it is chewed is mixed with saliva, and the saliva is an aid to digestion.

The food should be chewed slowly, or the health and the teeth will be spoiled.

## QUESTIONS.

1. Where is the robin's food cut into bits?
2. What does the robin eat to help his food to digest?
3. What are our teeth made for?
4. Why ought we to chew very slowly?
5. What will happen if we swallow our food without chewing it?





## CARE OF THE TEETH.

WE all want to have pretty, white teeth, and have them last as long as possible. This means that we must take very good care of our teeth.

The teeth ought to be brushed after every meal. If it cannot always be done we should at least take great care to clean them just before we go to bed and before breakfast in the morning, so that no bits of food may be caught between the teeth.

It is better to brush the teeth with warm water than cold. Very cold water or very hot water is apt to crack the enamel and cause decay.

When you buy a brush select one that is soft rather than a stiff one. A stiff brush is apt to cut the gums and make them bleed a little, so that they grow tender. You should always brush the teeth up and down instead of around the gum. It is well after



cleaning to draw a silk thread in and out between the teeth to take away any bits of food that may have caught there.

Tooth-powder helps to keep the teeth clean, but take great care never to use a powder or wash that contains acid. Any acid eats into the teeth and spoils them.

You do not need to brush the teeth with powder more than once a day, or every other day will do quite as well. The brush and warm water will keep them clean enough between times.

As often as once in six months you should have a dentist clean your teeth. Little by little, no matter how careful we are about brushing, tartar will collect.

Tartar is a substance that collects on the teeth from the fluids in the mouth. It is something like shell. Tartar makes the gums spongy instead of hard and firm. It pushes the gums away from the teeth so that they become loose. Besides, it makes the breath unpleasant and if it is not removed in time, it is apt to hurt the teeth.



The dentist has spent years learning how to work about the roots of the teeth without hurting them.

At least once a day, after the teeth have been brushed, the mouth should be rinsed with a mouth-wash. Any alkaline water\* is good enough for this purpose. The mouth-wash should be used in the morning or at night, or better at both times.

If you take care to keep your teeth just as clean as you can, and have the dentist look after them once in a while, you will be sure to have a sweet mouth. Your breath will be sweet too, and you will have hard firm gums and sound teeth. We do not need to speak of what will happen if you do not take good care of your teeth, for all nice people are as careful about brushing the teeth as they are about washing their hands.

NOTE.—The following powder will answer excellently well as a preparation for cleans-

---

\* Water containing an alkali.



ing the teeth. Young people may be glad to have the prescription filled for their use :

#### TOOTH POWDER.

Soap powder.....	2 drachms
Prepared chalk.....	4 ounces
Bisulphate of quinine.....	4 grains
Powdered cuttle-fish..	4 drachms
Oil of rose.....	4 drops

The following mouth-wash is antiseptic and sweet to the taste. (Anti-septic means that it prevents decay.)

#### ALKALINE MOUTH-WASH.

Borax powder.....	4 drachms	
Glycerine	} of each.....	$\frac{1}{2}$ ounce
Tinct. of myrrh		
Rose water.....	10 ounces	

#### POINTS TO REMEMBER.

The teeth ought to be brushed after every meal.

It is better to use warm water than cold for cleansing the teeth.

Use a soft tooth-brush.

Use tooth-powder once a day, but be careful not to use a powder that contains acid.

Tartar should be removed from the teeth by a dentist as often as once in six months.

Rinse the mouth once a day with some mouth-wash.

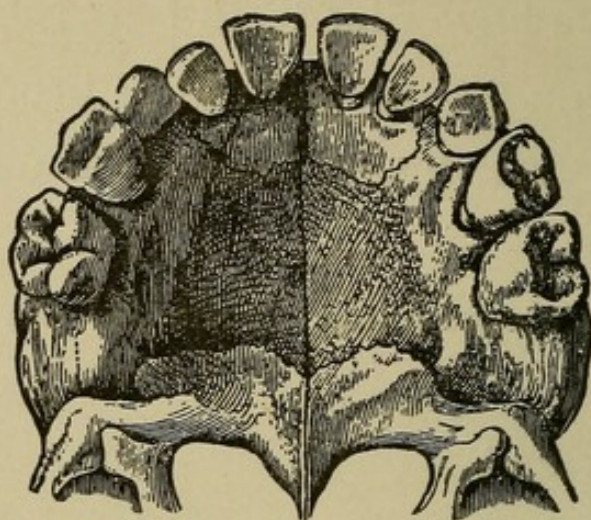
## QUESTIONS.

1. How can we have nice teeth ?
2. How often ought the teeth to be brushed ?
3. What kind of a brush should be used for the teeth ?
4. How often should the teeth be cleaned by a dentist ?
5. What is tartar ?
6. What is the best kind of mouth-wash ?
7. How often ought the mouth to be rinsed with a mouth-wash ?

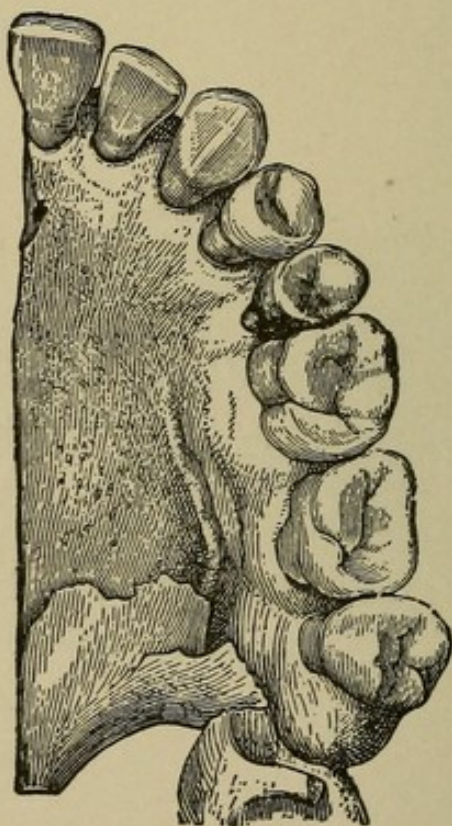


What the Lion's Teeth Cannot Do, the Little Mouse's Can.





Milk Teeth—Upper Jaw.



Permanent Teeth—Upper Jaw, left side.



## WHAT TO EAT.

VERY likely your father and mother have often said to you, "We cannot let you eat much candy for it would spoil your teeth." Would you like to know some of the things that are really good for you to eat, and that will make your teeth white and strong?

In the first place, the teeth are made of lime and phosphates, so that they are almost the same as bone. If we eat food that has lime and phosphates in it, our teeth will be strong. If what we eat does not have these substances, the teeth will be weak, frail and soft, and before many years they will be decayed.

Milk is a good food, especially after it has been boiled. Buttermilk is all right unless the butter has been churned from very sour milk.

Wheat, corn, rye, oats, and rice are the very best kind of food unless we eat too



much of them; but graham and whole wheat bread give stronger teeth than anything made of fine white flour. We should eat oatmeal or something of the sort for breakfast every morning.

It seems queer to think that it makes any difference with the teeth what we eat, but it is the same as with the plants. We do not see the violet drink the dew and the rain, but we know that if the rain does not fall the flower will dry up. So our teeth take in the part of our food that they need and if what we eat has nothing for them they soon grow dark and decay.

Eggs are best when soft boiled. Hard boiled eggs do not easily digest, and whatever is not good for the stomach may in some way injure the teeth. We like eggs better with a little salt and bread or toast than all alone, and our teeth enjoy them better that way too.

We may eat meat without harming our teeth if we do not take much. Meat should always be well cooked. Beef and mutton



are more healthful than any other kinds. We may have all the fish we want if we eat only what is fresh and sweet.

Did you know that beans make better teeth and contain more food than anything else that grows in the garden?

Ripe fruit is very wholesome, and of this we may eat as much as we like. Cabbage, parsnips, carrots, onions, tomatoes and beets may also be used on our table.

These are only a few of the things we may eat. But we need to take care that we have the proper food, or we shall have to wear false teeth long before we begin to be old. Many a child brought up on dainty food has weak and frail teeth, because the foods he eats do not furnish the lime and phosphates needed, while the child living on plain food is more likely to have a mouthful of pretty teeth that money cannot buy.

When mother says in the morning, "You must finish your oatmeal before you can have anything else," or when she says



“You must eat a slice of bread and butter instead of cake,” it is because she wants your teeth to grow strong and useful. If you eat the oatmeal, every bit, and take the good bread and butter without any fuss, you will thank her some day for helping you to have teeth that are pretty and will last for many years.

#### POINTS TO REMEMBER.

We must eat food that has in it lime and phosphates, to have good teeth.

Milk is best when boiled.

We should eat some coarse grain food every day.

Eggs should be soft-boiled, and eaten with bread or toast.

Meat should be well cooked.

Beans and peas are very fine food, and all kinds of vegetables are good.



## QUESTIONS.

1. What two things must our food contain, to give us strong teeth?
2. What should be done to milk before we drink it?
3. What should we have for breakfast every morning?
4. How should eggs be cooked? What should we eat with them?
5. What are the best kinds of meat?
6. What is the most healthful kind of food that grows in the garden?





## HOW TO EAT.

IN the olden days, people had no knives or forks to eat with. Sometimes a large dish was placed in the center of the table and each person put his fingers right into it, took out what he wanted, and ate it from his hands. In the houses of the wealthy they were a little nicer about eating, for each one had a dish to himself, but still all ate with the fingers.

This meant, of course, that they usually ate fast and often did not half chew their food. A great deal of what we eat is soft, like oatmeal, and if we should be compelled to take it up in our fingers we too would swallow it down just as fast as we could.

By and by people grew wiser, and they saw that if they failed to chew their food it made them ill, so they began to eat with their knives. But it was hard to eat some



things even with knives without hurrying, so some wise man thought of making forks to eat with.

Now-a-days we think it very impolite to eat with anything except the fork or spoon. Do you see the reason why?

For the sake of our health we must eat slowly and chew our food fine before it is swallowed. That is why we have knives and forks. The knives help us to cut the food into small pieces so that we can chew them well. With the fork we put the pieces into the mouth so that the eating may be done slowly and quietly. Knives and forks help us very much in keeping our teeth white and firm.

If Thanksgiving came every day in the year our teeth would probably be much worse off than they are now. There is nothing so bad for the stomach and teeth as eating too much. This habit of eating more than the body needs is something that most people have.

You do not want to get into this habit,



do you? Then make it your rule to stop at every meal when you feel that you have eaten enough. Never mind if you do not eat your pudding. If the meat and potato were all you needed for your dinner be wise enough to let the dessert alone. The next time eat less of the first course and leave room for the pudding or pie.

Our food is best for us when it is about as warm as our bodies, that is ninety-eight degrees. It will not hurt us to eat what is a little colder or a little warmer, but we ought not to eat very much ice cream or drink much ice cold soda.

Hot soup, hot enough to burn the stomach, is just as bad, for anything very hot or very cold will crack the enamel of the teeth and then they soon begin to decay.

Now here is something for children to remember. If you want to have even, white teeth, and if you want to keep your own teeth many years, as of course you do, you must be careful to eat good, whole-



some food and take plenty of out-door exercise, as whatever injures the general health indirectly affects the teeth.

### POINTS TO REMEMBER.

Food must be eaten slowly and chewed well.

We should not eat too much.

What we eat should not be very hot or very cold.

Anything that injures the general health affects in an indirect way also the health of the teeth.

### QUESTIONS.

1. How did people in olden times eat?
2. What was the harm in eating with the fingers?
3. When the people found how bad it was for their health to eat fast what did they do?



4. Why is it impolite to eat with the fingers or the knife instead of the fork?
5. How much should we eat?
6. How do we know when we have had enough?
7. What is the harm in eating too much?
8. How warm should our food be?
9. What is the harm in eating too much ice-cream and other very cold or very hot things?
10. How can we keep our teeth in good health?



Some Kinds of Microbes.



## BAD HABITS.

THERE was once a little girl who sucked her thumb. Her father and mother did everything they could to cure her of the habit. But every time she was sitting still or walking along the street the naughty little thumb would creep to the corner of her mouth and there it would stay till she was told to take it out.

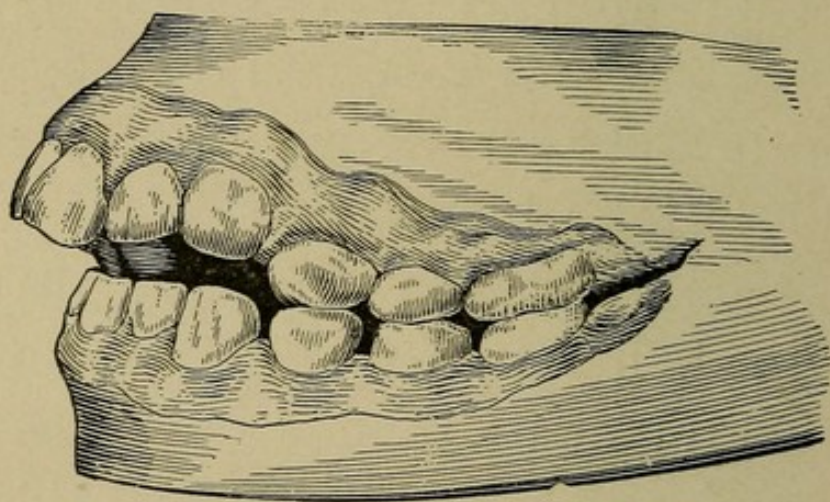
At last one morning when the little girl was dressed, her father made her sit down in a rocking-chair, and he wrapped her whole hand and arm in a sheet. Then he said, "Now we are going to keep your thumb wrapped up all the time until you stop sucking it."

When the little girl looked at the great bunch of cloth covering her whole arm, she was frightened, for she thought she was never going to see her hand again. For a long time she sat very still in the



large rocking-chair. At last she called her father and told him that if he would take off that dreadful sheet she would never suck her thumb again as long as she lived. And she never did.

Would you like to know why it was so very bad for the little girl to suck her thumb and why her father and mother tried



An ill-shaped mouth caused by sucking the thumb.

so hard to keep her from doing it? In the first place thumb sucking spoils the shape of the mouth, so that one who has had this bad habit can never have a pretty mouth as long as he lives.

It is even worse for the teeth than for the mouth. On this page you will see a



picture which shows how very badly the teeth look when one has sucked his thumb. There is danger that it will make a person lisp, the teeth become so twisted out of shape.

So besides being a very silly habit, sucking one's thumb is very, very bad for the health.

Sometimes a boy or girl gets into the habit of sucking the lips or drawing the lower lip into the mouth. This is a habit likely to spoil the shape of the mouth as teeth become pressed inward. Constantly drawing the lower lip in, presses the lower front teeth back so that little room is left for the back teeth. The large double teeth are crowded so close together that there is not room for them all. Then it becomes necessary either to take out some of the back teeth or to force the front teeth back where they belong. So just because a child sucks his lips, he must lose one or more of the good strong, double teeth that he really needs for chewing food.

Shall I tell you what is done to cure children of sucking their lips? If they do



not stop it themselves the doctor fixes a piece of hard rubber in the mouth between the lips and the teeth so that the lip cannot be moved. There the rubber is kept until the habit of lip-sucking is forgotten.

Sometimes children breathe through the mouth instead of the nose. If a child says he cannot breathe through his nose the doctor should see if there is something the matter with the nose or throat. But if it is just a careless habit of dropping the chin and so taking the air through the mouth, the Indian cure is the best way to stop it.

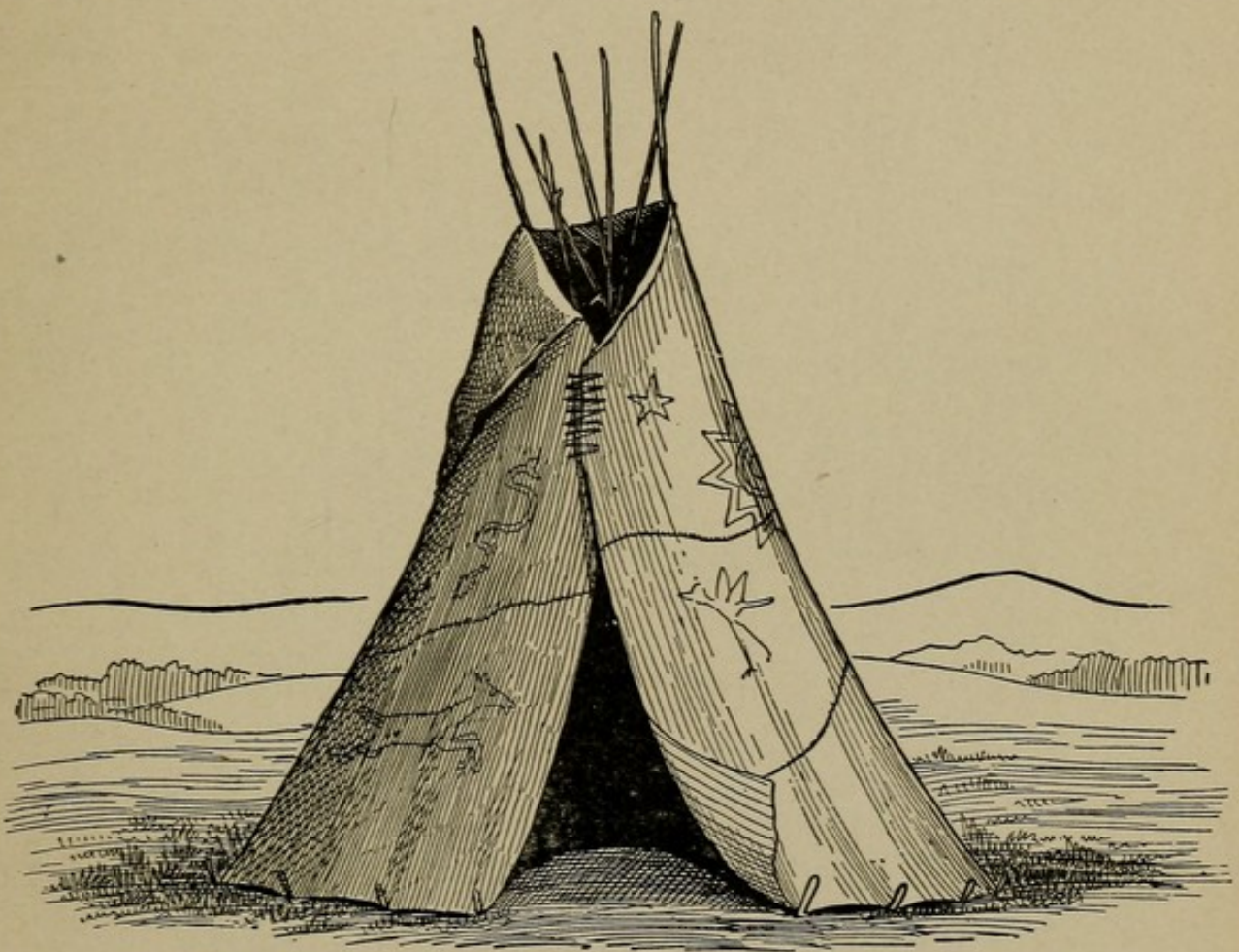
If a little Indian baby breathes through its mouth its mother fastens a piece of cloth about the head so that it covers the mouth tightly. Then the baby must breathe through the nose or not breathe at all.

Doctors cure the habit in just the same way, only they put a piece of rubber across the mouth instead of the cloth.

Now here is something for boys. Nobody can smoke or chew tobacco, or drink any



kind of liquor without spoiling the teeth. There is no way in which tobacco can be used that does not make the teeth yellow. Besides it helps to ruin them.



The Indian Baby's Home.



## POINTS TO REMEMBER.

Thumb-sucking is very bad for the teeth and the mouth.

The habit of sucking the lips is also very bad, for it presses the teeth inward so that their shape is spoiled.

## QUESTIONS.

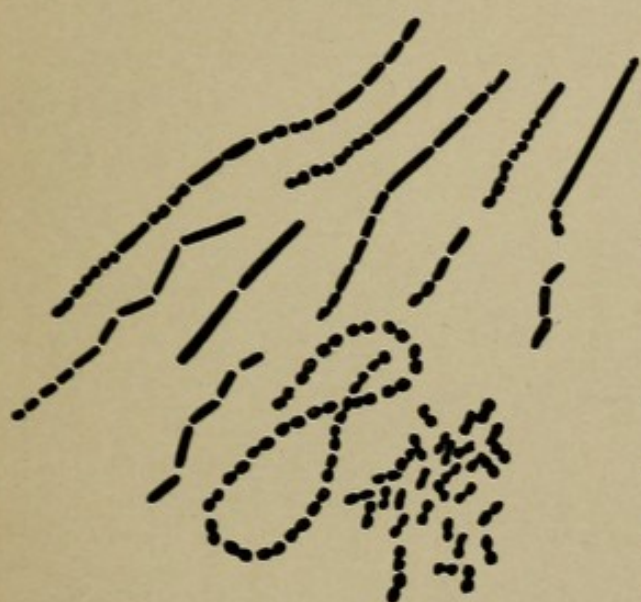
1. How was one little girl cured of sucking her thumb?
2. What does sucking the thumb do to the mouth?
3. What does it do to the teeth?
4. What is the harm in sucking the lips?
5. What is done to cure children of this habit?
6. How do the Indians cure their babies of breathing through the mouth?
7. What do tobacco and liquor do to the teeth?



## WHY TEETH DECAY.

PEOPLE often wonder just what makes teeth decay. There are several things that help to spoil the teeth but the causes are easy to understand.

You know that if an uncovered dish of



Some Microbes.

cooked fruit is allowed to stand in a warm pantry for a few days, it spoils. On the pieces of the spoiled fruit can be seen little specks of green mould. Now this mould is really a sort of plant

growing on the fruit. And how do you suppose the seed ever got into that pantry and onto the fruit so that the little mould plants might grow?

It is probably this way. Everywhere in



the air there are many, many tiny microbes, or plant seeds you may call them if you like. All day long they float about, so many of them that no dish of food could be left exposed without some of these little microbes lodging in it. The microbes are so small that we could not possibly see them, but when a lot of them have gathered on our fruit we can see the mould that grows from them.

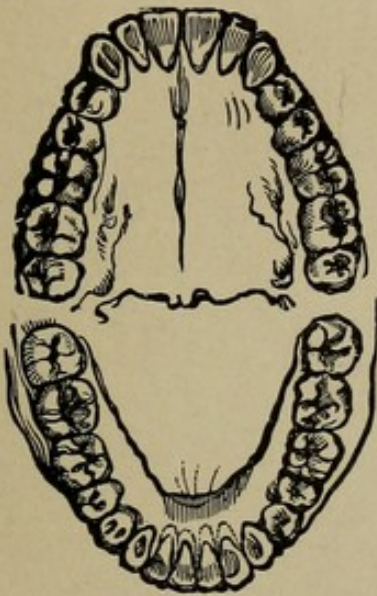
Now it is just as bad, or even worse, if bits of food are caught between two teeth and allowed to remain there, we open our mouths to laugh, or to cry, or to eat, and in float the little microbes to make the bits of food, such as meat, spoil. And in the mouth they become foul much sooner than they would in a pantry. The mouth is warm and moist, just the kind of place to make microbes grow fast, spoiling the food on which they grow.

If you should taste the spoiled fruit in the pantry you would find it puckery and very sour. The microbes have turned the



juice to an acid. And that is just what happens in the mouth. The warmth, the moisture, and the microbes make an acid of the food, and it is this acid that decays the teeth.

You can see just how the acid eats away the enamel, and then the dentine, and makes a hole in the tooth.



How the Teeth Ought  
to Look.

Ask your mother or teacher to pour a bit of acid\* upon a saucer and drop into it a little piece of marble. The acid eats the marble right away. The acid in the mouth eats away the tooth in the

same way, only it does the work much more slowly. The bits of food left about the teeth form the acid, with the aid of the warmth and moisture. The teeth are mineral, so the acid formed there does the

---

\*To the teacher or parent: Muriatic acid should be used for this experiment. Both acid and marble can be purchased at an apothecary's.



same thing with them that the acid did to the marble—eat it up.

This acid, which comes from the warmth, moisture, and microbes in the mouth, is the great cause of decay. But there are a few other things that help. Some people have softer teeth than others so that the acid eats them away more quickly. Then if people are sick their teeth are apt to be sick too and so decay.

The only way to keep the teeth from decaying is to clean them, to eat the right kind of food, to take plenty of exercise in the open air and so keep well and strong. It is very important also to see that bits of food are taken from between the teeth after every meal.

#### POINTS TO REMEMBER.

There are microbes floating everywhere in the air.

When the mouth is opened these microbes float in and lodge on the bits of food caught between the teeth.



The warmth and moisture of the mouth help the microbes to grow.

These microbes turn the food between the teeth to an acid, and this acid eats the teeth away.

The acid formed in the mouth eats away first the enamel, then the dentine, and finally the pulp.

If people have soft teeth, or are sick, the acid in the mouth eats away or decays the teeth very quickly.

### QUESTIONS.

1. What happens to cooked fruit if it is left exposed to the air?
2. What is the mould on the fruit?
3. How does the mould-microbe get on the fruit?
4. What happens to bits of food allowed to remain between the teeth?
5. What is there in the mouth that helps the microbes to grow?
6. Into what do the microbes turn the food?
7. What does this acid do to the teeth?
8. What kind of teeth decay most easily?
9. What must we do to keep the teeth from decaying?



## TOOTHACHE.

SUPPOSE you do not take good care of your teeth, what will happen? Your teeth will turn yellow and dark. But there is something worse than that.

If you are careless about your food and about brushing your teeth they will punish you by aching. Perhaps you think because you have never had the toothache that you never will. Though you have not had it so far that is no proof that you may not have it to-morrow, if you have not taken good care of your teeth.

I know a little boy only four years old who has toothache every time he eats anything sweet. His mother always lets him eat a lot of candy, and he never eats oatmeal for his breakfast. That is the trouble with his teeth.

Sometimes people will live to be twenty-five years old before they find out how a



toothache feels. Then suddenly the teeth that have not been well cared for will begin to ache and hurt so badly that the person will not know what to do for pain.



How the Squirrel Eats.

If you have ever had toothache you know how bad it is. If you have not, take good care of your teeth so that you may never try it.



When the toothache comes, it means that a tooth is decayed or decaying. If you go at once to the dentist he may save the tooth by filling it. Very often he can keep it from decaying any more. And he can nearly every time stop the aching at once.

You remember that every tooth is covered with enamel. Next to the enamel is a layer of dentine, and inside the dentine is the pulp.

The tooth begins to decay from the outside. Little by little the enamel goes away, just how, you learned in the chapter "Why Teeth Decay." Then after the enamel is gone the dentine begins to decay. After there is no more dentine, the pulp soon follows.

If you do not have real hard toothache, but a certain tooth hurts a little when you eat something very cold or very hot, it means that the tooth has just begun to decay. The enamel is gone and the dentine is exposed.

A constant severe pain in a tooth means that the dentine is gone and the pulp, which



ought to be covered with a thick dentine blanket and a thinner enamel blanket, is all open to the cold air. Do you wonder it aches hard to pay for being so badly used?

After the pulp is exposed to the air, the nerve of the tooth dies and the tooth turns dark. We call it a dead tooth from which all sorts of sores and tooth diseases may come.

If an aching tooth is not filled, it will grow worse and worse. Sometimes a gum-boil will come out. The gum swells and a white bunch appears on the outside of the gum. It is very sore and sometimes lasts for days.

Sometimes a decayed tooth causes a sore which breaks through on the outside of the cheek. This is apt to make the person very sick, and it often leaves a scar that never goes away.

#### POINTS TO REMEMBER.

If we do not take good care of our teeth they are sure to punish us sooner or later by aching.



If a tooth does not really ache, but hurts a little when we eat something very cold or very hot, it is just beginning to decay.

If there is constant, severe pain, the dentine is gone and the pulp is exposed.

After the pulp becomes exposed the tooth dies.

If an aching tooth is not filled, it is likely in time die and cause a gum-boil or swelling, or perhaps a sore that breaks through the cheek.

### QUESTIONS.

1. What makes people have the toothache?
2. What is the best thing to be done with an aching tooth?
3. Where does the tooth begin to decay?
4. When a tooth is sensitive to heat and cold, how much has it decayed?
5. When a tooth aches all the time how much has it decayed?
6. What happens to a tooth after the pulp has been exposed for a time?
7. What happens if an aching tooth is not filled?



## CURING TOOTHACHE.

IF the toothache comes at night or where a person cannot reach the dentist right away there are several little medicines that will stop it for a time.

A little bit of oil of cloves inserted with cotton in the hole of the tooth will sometimes help. A little alcohol used in the same way will often stop the pain.

If a gum-boil is forming, a red pepper poultice or a dental plaster is the best cure. To make the poultice put in a cotton bag a mixture of three parts flour and one part red pepper. Warm it and put it on the gums right over the sore place.

A raisin poultice will do nearly as well as red pepper. This is made by cutting several large raisins in two, taking out the seeds and then heating the soft part. A hot raisin put right on the gum soothes the pain. When it is cool take it off



and put on another hot one in its place.

If a tooth that has been aching is filled it is sometimes sore for a day or two. A hot foot-bath may often help to cure the soreness, as it takes part of the blood away from the mouth and sends it down towards the feet.

After the teeth have been cleaned by the dentist they are often a little sore. The best cure for this is salt water. Put a teaspoonful of common table salt into a tumbler of warm water. Rinse the mouth with the salt water half a dozen times a day.

These little cures for toothache are worth knowing about if you have not always taken good care of your teeth. But there are many grown-up people who have never had the toothache in their lives, and you can be one of them if you eat proper food and brush your teeth twice every day as you ought.



Mr. Bear has Very Good  
Teeth.



## POINTS TO REMEMBER.

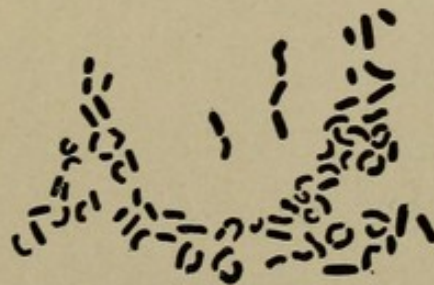
Oil of cloves or alcohol will often stop toothache

A red pepper or a raisin poultice will often relieve the pain caused by a gum-boil.

Salt water is good for soreness of the teeth.

## QUESTIONS.

1. When a tooth is aching what remedies can we try ourselves?
2. If a gum-boil has formed what can be done?
3. Tell how to make a red-pepper poultice?
4. Tell about the raisin poultice.
5. If a tooth that has been filled still aches, what can be done to ease the pain?



What Microbes Look Like.



## TOOTH MENDING.

IN the olden times people thought that all a dentist was good for was to pull teeth. Very often, indeed, the barber bought a pair of forceps and drew his customer's teeth as well as cutting his hair. A blacksmith could always be found who would gladly use a pair of his large tongs and his strong muscles in pulling out the tough-rooted tooth of one of his neighbors.

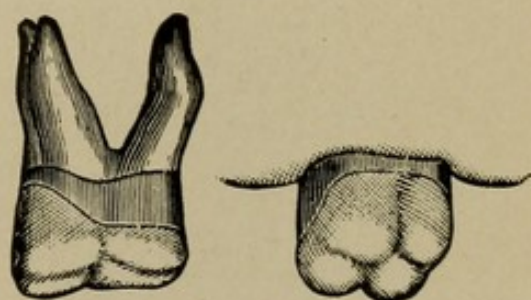
We have grown wiser in these days, and we know that only a trained dentist can tell what ought to be done to our teeth, and after the grown-up teeth have come he very seldom finds it best to pull one.

If we are careful to have the dentist look at our mouths once in six months it costs very little to keep the teeth in good condition. If the dentist finds a tiny hole in a tooth he fills it at once. It does not hurt much to have the work done. Besides,



the cost is small and the tooth stops decaying. Probably it will need nothing more done to it for years.

Just as soon as a tiny hole comes in a tooth it ought to be filled. The filling may be of gold, tin or silver. If a baby tooth begins to ache it can be filled with a soft cement. It hurts very little to have this put in and it will last until the grown-up tooth comes to take the place of the little one. The dentist knows better than we do what a tooth ought to be filled with and when it should be done. It is always wise to let him fix our teeth as he thinks best.



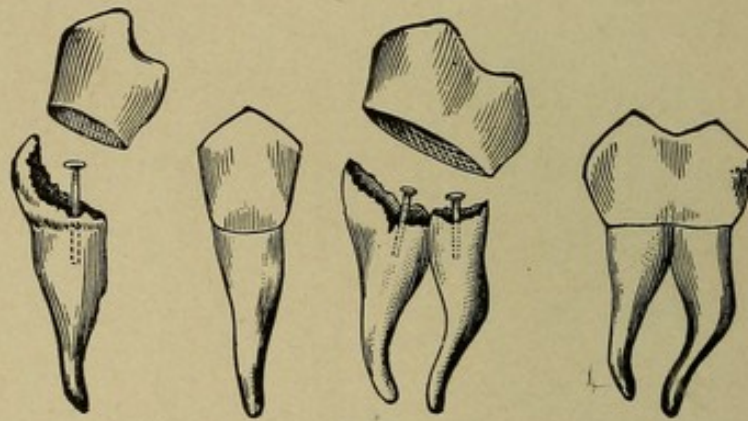
A Tooth Crown.

To fill a tooth the dentist first scrapes away the decayed part. He cleans the hole in the tooth with great care, then he puts into it some substance that fills the hole up smooth. Any rough edges of the tooth or the filling are smoothed off and the tooth is



ready to do its work of biting or chewing. This all sounds very simple, but no one but a man who has spent years in learning how can fill a tooth with success.

When we grow careless and let our teeth go for a year or two, or even more, they are apt to be much worse off. Then there



How a Crown is Put On.

may be large holes, or perhaps if it is a grown-up tooth it may need to be crowned.

A crown is a cap made to fit right over an old worn-out tooth. For a back tooth the crown is of a thin piece of gold. It is made to fit the tooth which is to wear it, and it is fastened on so tight that it can never come off. The crown for a front



tooth has a porcelain face so that it may look like the other teeth.

Once in a while a tooth has to be pulled. If the dentist says so, out it must come. The easiest way is to be brave, go to the dentist's chair and just let him take out the tooth. It does not mean but one minute of pain. A single pull and the tooth will never hurt again.

For people who are afraid there is a kind of gas, called laughing-gas, that the dentist sometimes lets them breathe so that they will not know when the tooth comes out. But it is much better to let the gas alone and show that you can be as brave in the dentist's chair as you would expect to be if you were a soldier going to war.

It hurts very little to have a baby tooth pulled. Before the tooth is ready to come out the roots all go away, so that all there is to be pulled is the little tooth itself. The man who takes it out knows how to do it so easily that you hardly know when it comes.



## POINTS TO REMEMBER.

We should have our teeth examined by a dentist as often as once in six months.

It costs very little and hurts hardly at all to have a small hole filled in a tooth.

If we grow careless a large hole may need filling, or the tooth may need to be crowned.

## QUESTIONS.

1. Who were the dentists of olden times?
2. Who is the only one who should fix our teeth?
3. Why should the dentist examine our teeth often?
4. What happens if the teeth are neglected for two or three years?
5. What is a tooth crown?
6. How does the crown for a back tooth differ from one for a front tooth?
7. What substances are used for filling teeth?
8. What is the best filling for a baby tooth?
9. What is the best way to have a tooth pulled?
10. What is used for people who are afraid to have their teeth taken out?



## TOOTH-BRIDGES AND PLATES.

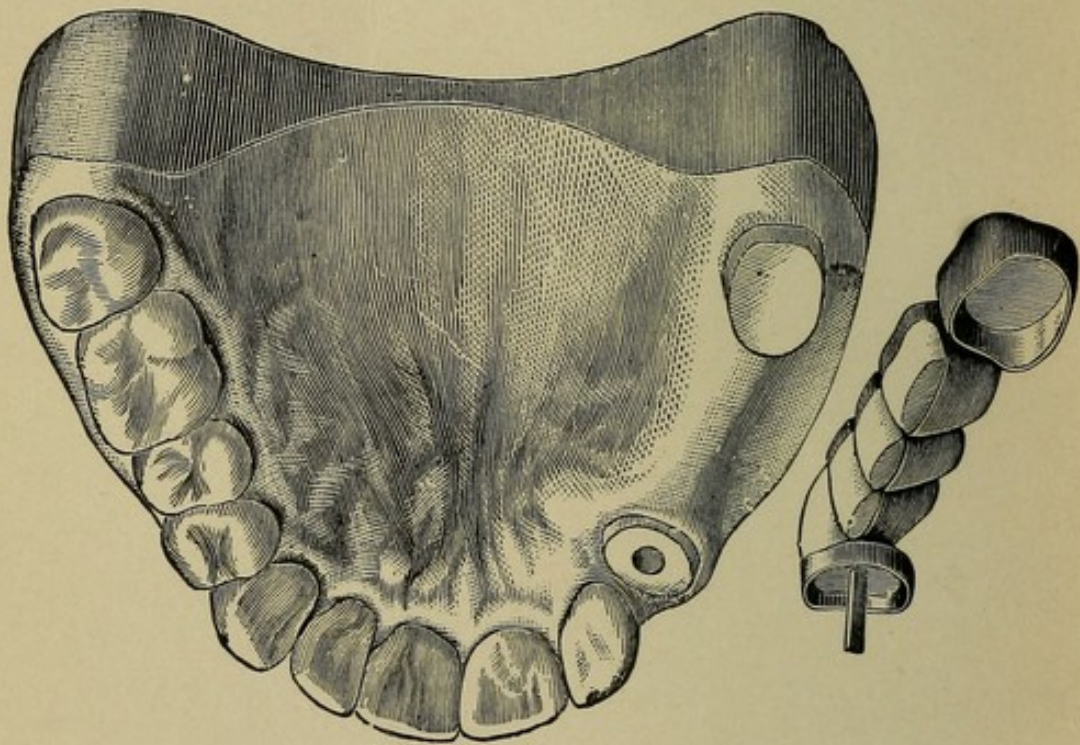
AT Mt. Vernon, the beautiful home where George Washington spent most of his life, many of the great man's things are kept. Among them is a set of false teeth that Washington is said to have worn. The teeth are white china, fastened to a plate of solid gold. They look very little like natural teeth, and the gold plate is very large. Either Washington must have had a huge mouth or else he found his teeth very uncomfortable.

When we look at the queer old teeth people wore a hundred years ago, we can see how much progress the dentists have made since Washington's day. The plates which are to hold false teeth are usually made of hard rubber, colored so as to look almost exactly like the gums. The teeth themselves are of porcelain, but instead of leaving them white like ordinary china,



they are tinted a cream color so that they look almost like natural teeth.

If a person can keep a few of his own teeth by having them carefully filled, dentists are very skilful in fastening false teeth to these without any plate at all.



This is called bridge-work. The bridge can be built only when there are two or more teeth strong enough to be crowned, with spaces from which teeth have been lost between them. The crowns and teeth are arranged like this: a natural tooth strong



enough for a crown, then a tooth fastened to the crown, then another tooth fastened to that, then if the space is all filled, a second natural tooth is crowned and to this the other end of the bridge is fastened.

Bridging teeth requires very skilful and very careful work on the part of the dentist, but it is wonderful how well one's mouth may be made to look with them. If Washington could only see what fine work can be done for mouths in our day, he would probably feel like throwing his great china and gold contrivance into the nearest river.

Have you ever thought how wonderful it is that a set of false teeth fastened to a plate remains so firmly in place when once it is put in the mouth? The firmness depends upon two things: adhesion and the pressure of the air. These words perhaps mean very little in themselves, but you can understand them by two little experiments.

If you take two panes of window-glass



and press them firmly together you will find that it is not at all easy to separate them again. They hold together by adhesion, and the pressure of the air. The particles of glass cling to each other and then the air presses against the outside of the two panes and helps to keep them together.

If you have ever played with a leather sucker you know exactly how these forces do their work. A sucker is a round piece of leather (often cut from the side of an old shoe) with a hole in the center large enough to allow a piece of twine to pass through. The twine is knotted on the under side of the leather so that it will remain attached.

To use the sucker, the leather is soaked well in water. The upper end of the string is held in the hand, and the soaked leather pressed hard on a piece of brick or a flat stone. With a little care the leather can be made to hold to the stone so fast that both leather and stone can be lifted by the string and carried or whirled in the air. Adhesion makes the leather and stone cling together.



The pressure of the air holds them in place.

False teeth stay in the mouth in just the same way. We say they are held by suction, but by this we mean simply that the air is pressed out between the plate holding the teeth and the roof of the mouth so that there can be adhesion between the two parts.

You have perhaps seen some one's false teeth drop down onto the tongue when the person was talking or eating. This was because the plate did not fit the roof of the mouth exactly and the air could get in between. The air kept the roof or palate and the rubber from adhering together so that any movement allowed the teeth to fall.

#### POINTS TO REMEMBER.

Very often people can have teeth fastened in their mouths without any plate at all, by means of bridges.

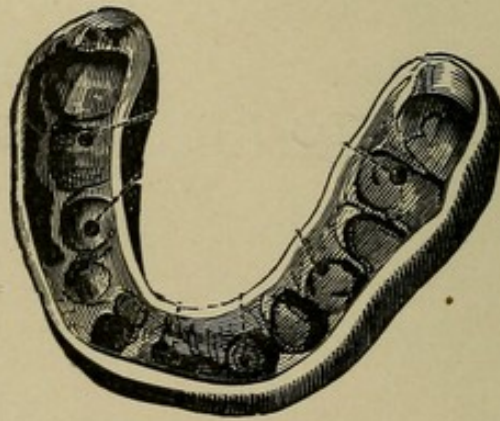
If the teeth are so far gone that a bridge cannot be held in place, of course a plate must be used.

The plate is held in place by what is known as suction.



## QUESTIONS.

1. How do false teeth now-a-days differ from Washington's false teeth ?
2. What is a tooth bridge ?
3. What are the parts of the bridge ?
4. When can a tooth bridge be built ?
5. What makes false teeth stay in the mouth ?
6. How can you show adhesion with two pieces of glass ?
7. What does a leather sucker do ?
8. What makes the leather sucker hold the stone ?
9. Why do false teeth sometimes fall down from the roof of the mouth onto the tongue ?





# APPENDIX.

## SUMMARIES.

### NAMES OF TEETH.

Two different sets } *temporary*, or milk teeth [baby teeth];  
                               } *permanent* teeth.

Kinds of teeth } *incisors*, or cutting teeth;  
                               } *canines*, or tearing teeth [eye teeth];  
                               } *bicuspid*s [sometimes called "false grinders"];  
                               } *molars*, or grinding teeth [true grinders].

### ARRANGEMENT OF TEETH.

#### A.—TEMPORARY, OR MILK TEETH. [20.]

2	I	2 + 2	I	2	=10	}	20.
molars, canines, incisors, canines, molars,							
2	I	2 + 2	I	2	=10		

#### B.—PERMANENT TEETH. [32.]

3	2	I	2 + 2	I	2	3	=16	}	32.
molars, bicuspid, canines, incisors, canines, bicuspid, molars,									
3	2	I	2 + 2	I	2	3	=16		

### USUAL ORDER OF APPEARANCE.

#### I.—OF MILK TEETH.

Central incisor.....	5-6th month.
Lateral incisor.....	7-8th "
First molar.....	12-16th "
Canines .....	14-20th "
Second molars.....	21-36th "



## II.—PERMANENT TEETH.

First molars.....	5-6th year.
Central incisors, lower jaw.....	6-7 h "
Central incisors, upper jaw.....	7-8 h "
Lateral incisors.....	7-9th "
First bicuspid.....	9-10th "
Second bicuspid.....	10-11th "
Canines.....	11-13 h "
Second molars.....	12-15th "
Third molars or wisdom teeth.....	17-23d "

The illustrations on the opposite page indicate the shapes and positions of both temporary and permanent teeth. Examination of children's mouths will enable teachers and parents to distinguish the temporary from the permanent teeth at a glance.

## PARTS AND STRUCTURE OF A TOOTH.

Two principal parts  $\left\{ \begin{array}{l} \text{crown,} \\ \text{fang, or root.} \end{array} \right.$

The line of union of the crown and the fang is called the *neck*.

Structure  $\left\{ \begin{array}{l} \text{hard substance } \left\{ \begin{array}{l} \text{dentine,} \\ \text{enamel,} \\ \text{cementum.} \end{array} \right. \\ \text{soft substance: } \textit{dental pulp.} \end{array} \right.$

Dentine is yellowish white and consists of 72 per cent. bone-earth and 28 per cent. bone-cartilage. [Chief constituent of a tooth.]

Enamel covers the exposed surface of the teeth, is glistening white, and is the hardest substance in the human body, containing only about 2 per cent. of animal matter. [Protects the teeth by preventing rapid wearing away.]

Cementum is a thin layer of bone covering the surface of the fangs or roots.



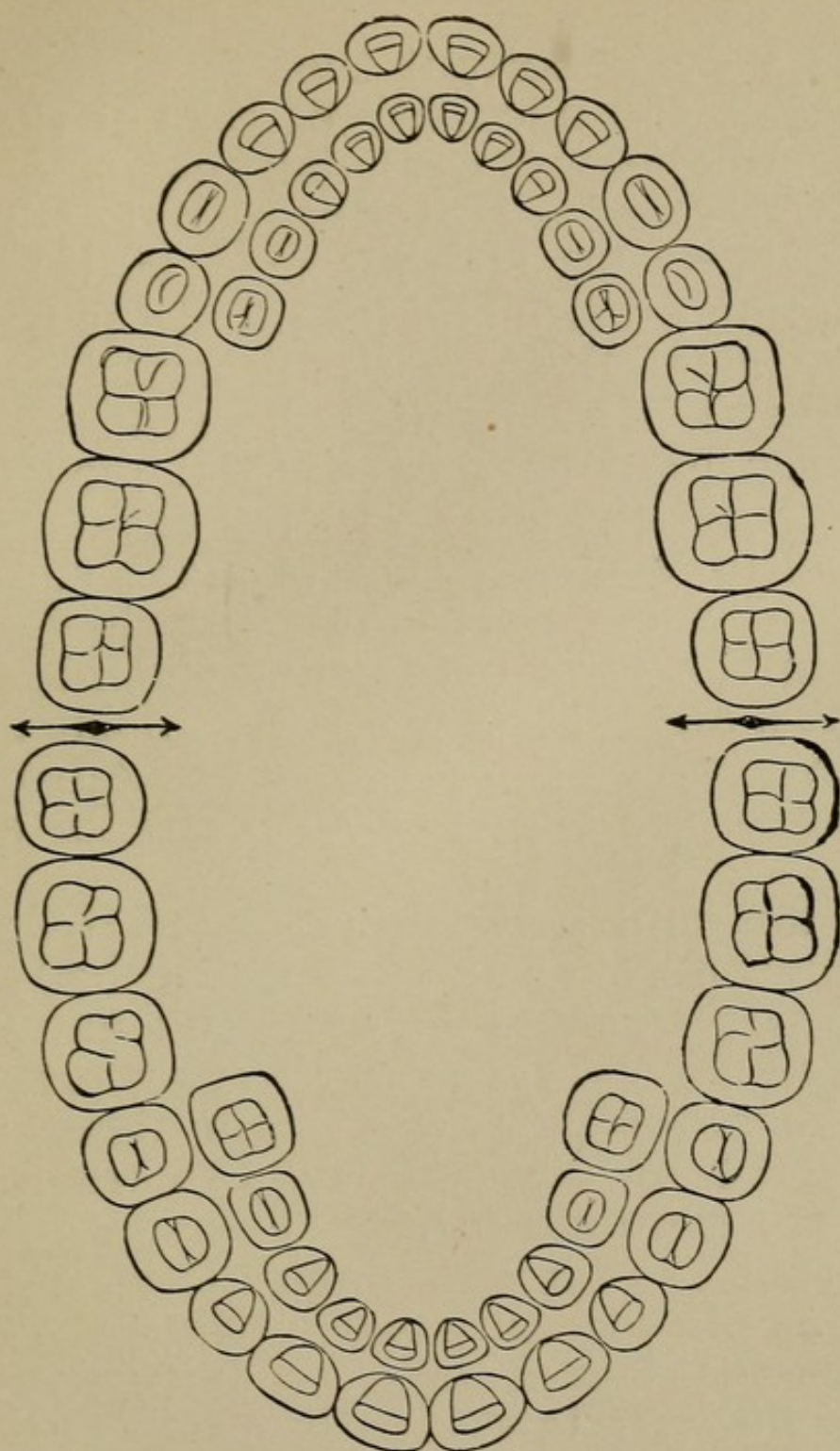


Diagram showing relative positions of temporary and permanent teeth, in both upper and lower jaw (inner row, temporary teeth; outer row, permanent teeth).



## Care of the Milk Teeth and General Cautions.

It is very important that teachers should emphasize the necessity of care of the milk teeth. Wholesome food, daily cleansing with tepid water and a soft brush, and avoidance of sweets or hard substances, will lay the foundation for lifelong health of the body in general, as well as of the second teeth. If the milk teeth are neglected, so that they become sensitive or decayed, the food is not properly masticated, and life-long dyspepsia is liable to result. What is more, since the germs of the permanent teeth have their place in the jaws long before the milk teeth are shed, any decay or disease of the earlier growth tends to weaken and deform the teeth that are supposed to serve for a lifetime.

It is not sufficient simply to tell little children that their teeth should be brushed daily. The process should be carefully explained. It is well for every one to remember that it is not *force* but *prudence* which cleanses the teeth. It is very mischievous to brush them as if they were stove-lids. Let the children know that it is not so much the teeth themselves as the spaces between them, that need to be cleansed from food. A moderately soft brush, which allows the hairs to enter between the teeth and dislodge any deposit, serves the purpose best. Tell the children



that the mouth should be rinsed with water, and the spaces between the teeth rendered clean of any extraneous matter.

Dr. Dio Lewis was once asked to address the pupils of a well-known boys' school. He told the young men that he had just one word for them, but that message was more important than any a great commander could give his men, for its fulfillment would mean health, wealth and happiness. When the boys were all on the *qui vive* to hear what the message was, the wise old Doctor continued in solemn tones, "My one word to you is, pick your teeth." The boys thought this a good joke and burst out laughing. But they soon regarded the matter in a different light. For Dr. Lewis went on to explain how the heat of the mouth renders meat deposits between the teeth putrid, so that all sorts of diseases are bred and foul smells issue therefrom.

Tooth picking is quite important. The ordinary wooden toothpicks are not well suited for the purpose. Quills are better. But floss silk is perhaps the most satisfactory means.

Much stress should be laid on the need of having decayed milk teeth cared for by the dentist. The lessons given in this book afford opportunity for examination of every child's mouth. If any dark spot or decayed space is seen, or if a child complains that



cold water or candy makes the teeth ache, parents should take the sufferer to a dentist at once. If the teacher is the one who discovers the difficulty, she should send a note calling attention to the danger of neglect and suggesting that the child requires attention. Most parents, even if they fail to comprehend the importance of dental treatment, will follow out a suggestion thus made.

Parents should be cautioned against having children's milk teeth removed too early. Nature will indicate the proper time. Usually the little teeth become loose themselves, because they are pushed by the permanent teeth which are soon to replace them. Injudicious removal of the first teeth is apt to cause irregularity of the permanent teeth. It should be remembered that the six-year molars, often called the six-year-old teeth, are the first of the permanent teeth to grow. Parents sometimes confuse these with milk teeth, and consequently have them pulled. As no others will ever take their places, spaces will be left in the jaws, in after years, between the wisdom teeth and the teeth farther forward. This will either necessitate bridges or will leave an ugly-looking mouth.

No tooth should be extracted because it is sensitive or aches. The advisability of extraction is a matter for the dentist alone to determine.



## THE BEST AUTHORITY

IN MATTERS RELATING TO DENTAL SCIENCE

is *The Dental Cosmos*. In an extended editorial review of Dr. Bell's "Our Teeth: How to Take Care of Them," it says:

"This primer is a very creditable attempt to put useful knowledge concerning the teeth into a form understandable by children, and is intended for their instruction in the schoolroom in connection with the general instruction which is given in some of the elementary school courses in physiology and hygiene. The treatment of the subject is extremely simple and should be within the easy comprehension of young children. . . . The pictures and illustrations throughout the book are very well selected, and add much to the teaching value of the work.

### EXTRACTS FROM LETTERS OF SCHOOL SUPERINTENDENTS.

"Our Teeth: How to Take Care of Them" deserves considerable attention from school people.

E. H. MARK.

Louisville, Ky.

"Our Teeth: How to Take Care of Them," by Victor C. Bell, seems to be just what is needed on this subject.

J. H. COLLINS.

Springfield, Ill.

I am sure that such a book as "Our Teeth: How to Take Care of Them" in the hands of children would be of life service to them.

Salem, Ohio.

J. S. JOHNSON.

It is practical and interesting.

H. B. HAYDEN.

Rock Island, Ill.

Dr. Bell has given us a helpful book. It is simple, interesting, and faithful in description and representation. The growing attention to this neglected and important phase of health-training is most satisfactory.

W. H. ELSON.

Grand Rapids, Mich.

I have examined "Our Teeth," by Dr. Bell, and regard it as admirably adapted for a supplementary reader on this important subject. The subject-matter is presented in an interesting manner and is highly valuable. The careful



reading of the book ought to lead children to give better care to their teeth, as well as a more careful observance to the laws of health. H. E. KRATZ.

Sioux City, Iowa.

The book will arouse interest in an important but neglected subject and will do much good. JAMES H. GRIFFITH.

Washington, N. J.

It is written in an entertaining style and treats of a very important subject. There can be no doubt but that more attention should be given this than it usually receives, and if this book were read by all school children much benefit would be received. VERNON L. DAVEY.

East Orange, N. J.

I am glad Dr. Bell has prepared so attractive and simple a book on such an important but long-neglected subject. He has done the children, as well as the parents and schools of this country, an invaluable service.

Washington, Ga.

H. C. HOLLINGSWORTH.

I like it very much. I am sure it will win a place for itself among supplementary readers. L. H. JONES.

Cleveland, Ohio.

I read "Our Teeth" from title to *finis*. Every teacher should have a copy on her desk and read a chapter a day, or have the children read it *aloud* for the valuable and useful information it contains. JAMES M. GREENWOOD.

Kansas City, Mo.

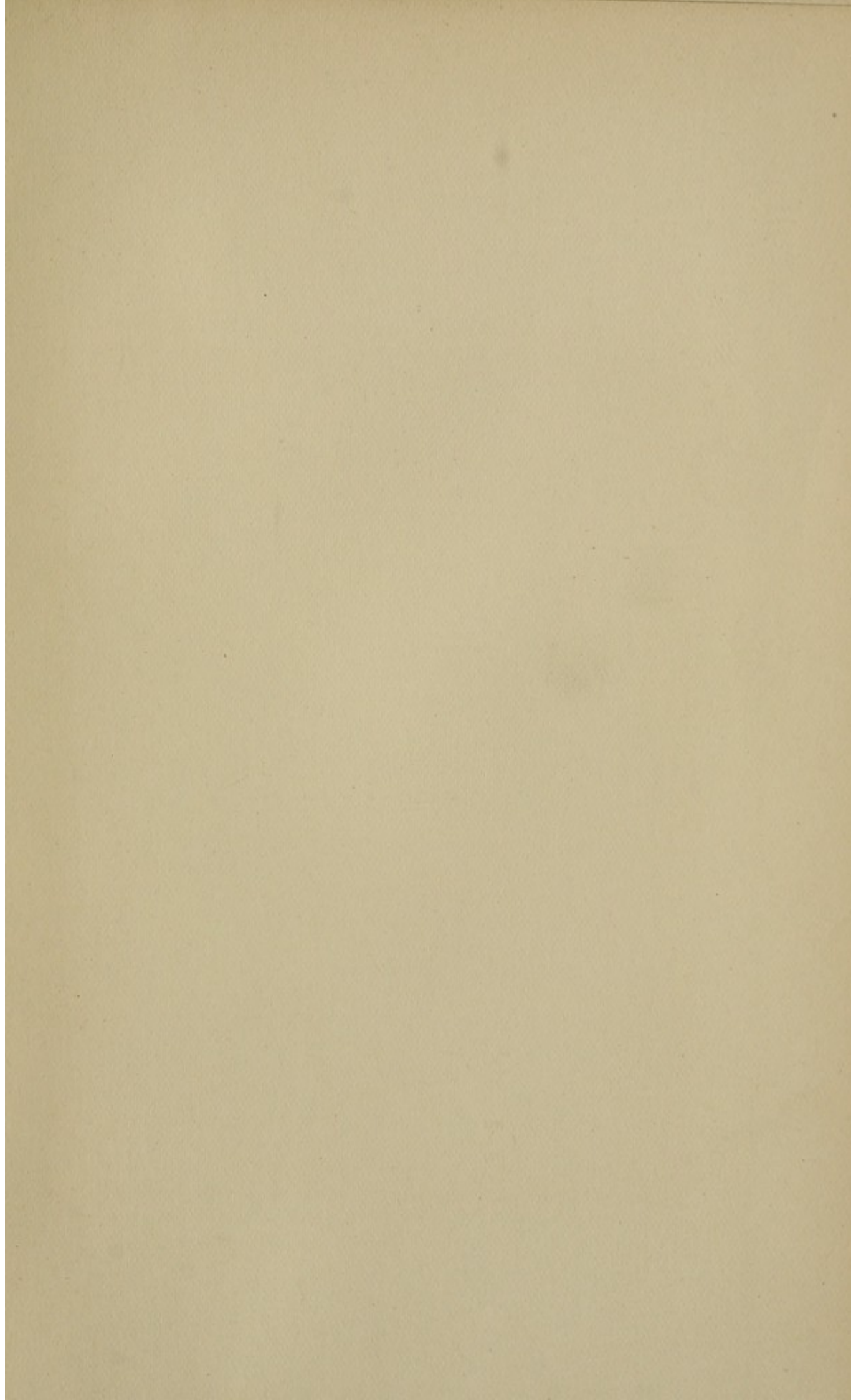
## WHAT SOME OF THE EDUCATIONAL JOURNALS SAY:

There are phases of physiology about the teaching of which there is a wide divergence of opinion. Some facts cannot be taught in school, some others must be taught with caution, but there are some subjects about the teaching of which there is no question, and chief of these is the teeth. The teeth are often ruined beyond recall in school days. This might be prevented in forty-nine cases in every fifty if the school did all that might be done in this direction. Cervantes said in the long ago: "A sound tooth is of more value than a diamond," and of this there are not two opinions. If this be so, what does it signify that a child has a little more arithmetic, geography, grammar, or spelling at the expense of a knowledge of his teeth and the care of them? Here is a book by the use of which, in twenty lessons, at the most, the teeth of every one of fifty children, more or less, may almost certainly be saved. Now, if any child in the schools goes out into life cursed with toothache, with the disgrace of foul teeth, or with the necessity of false teeth, whose fault is it?—*Journal of Education*, Boston.

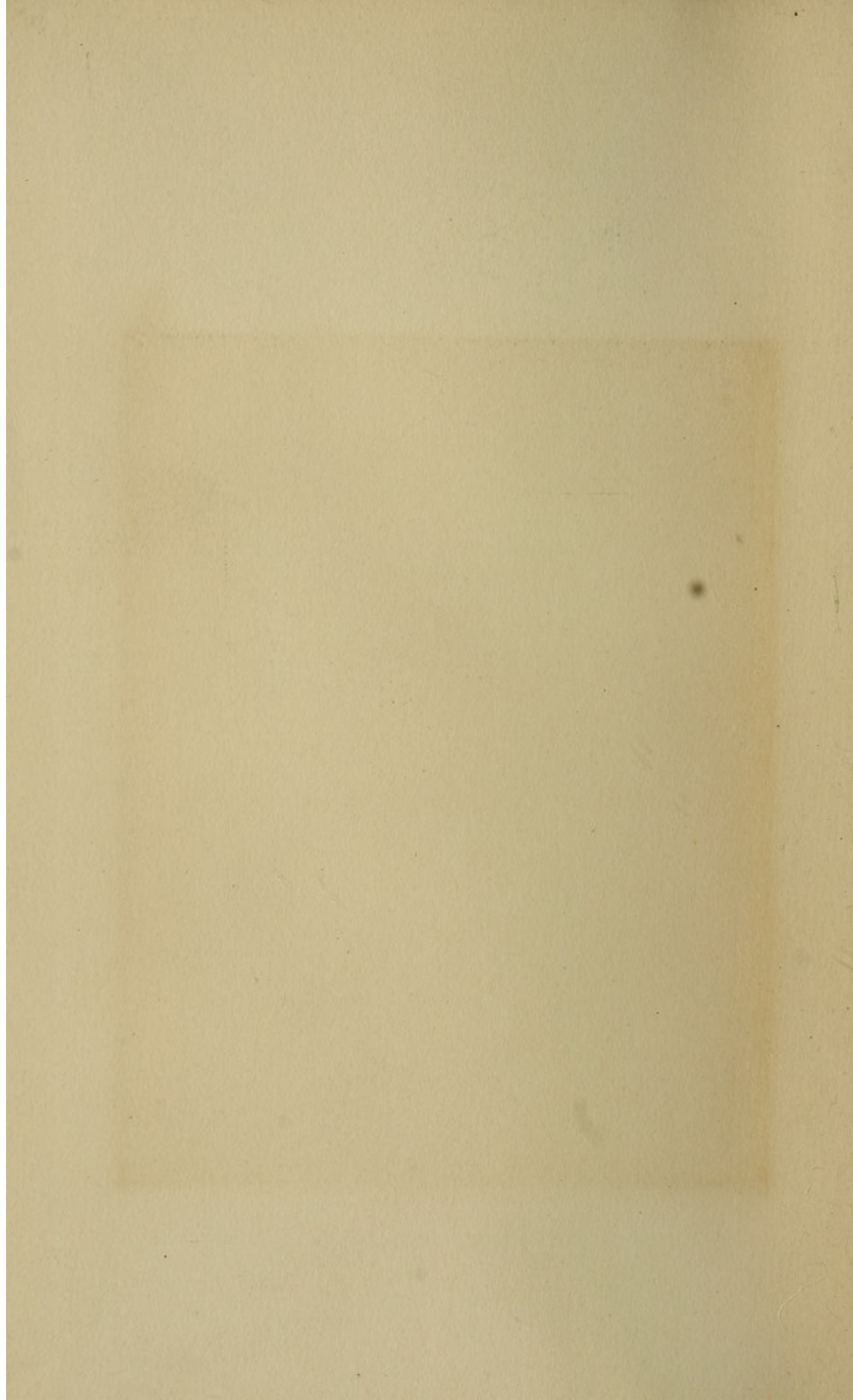
The instruction is here made plain and attractive, and the book cannot fail to do good where used.—*School Bulletin*, Syracuse, N. Y.

The book is adapted to the use of children and will be thoroughly enjoyed by them.—*Connecticut School Journal*.











RK61

B412

1901a

B-11

COLUMBIA UNIVERSITY LIBRARIES (hsl, stx)

**RK 61 B412 1901a C.1**

Our teeth :

