

you much gratification if they are kept at times in your greenhouse and get earlier into bloom.

Plenty of good hard and deep trenching should be done this month, and all the soil left in large lumps so as to allow the frost to act freely upon it. By this means some slugs and vermin, we may hope, will get destroyed. Any pruning of fruit-trees in the fruit-garden which has not yet been carried out, must without any delay—saving only that which a hard frost necessitates—be proceeded with. Sometimes, however, it happens that some one long operation in the garden has unduly occupied our time, or we have been unwisely riding some pet hobby to death.

This is always a mistake in the garden, as it destroys what is so absolutely an essential for successful gardening, and that is routine work. It is well in the opening month of the year to insist upon this caution.

There are many plants more strongly recommended than others for suburban gardens, and on a future occasion we shall hope to enumerate some of them, giving a few hints as we go along on the cultivation of each. Meantime, we are perhaps just now engrossed more or less by the festivities of our Christmas reunions, and who knows but that round the Yule log our gardening may suggest a subject for an animated discussion?

WHAT TO DO FOR THE TOOTHACHE.

BY A FAMILY DOCTOR.



THE experience of most medical men, and that of the older dentist-surgeons, seem to prove that ailments of the teeth and gums, with decay of the former and consequent toothache, are rather on the increase than otherwise. I do not pretend to be able to advance any theory

as to the *causæ morborum*; their name may be legion; but nevertheless the fact remains that five out of every half-dozen young men, or young women, suffer either inconvenience or positive pain from decayed teeth. If I were pressed to give an answer to the question, Why is this so? I should reply that the causes vary with the cases. Inherited weakness of constitution, is doubtless one principal cause of decay in the dental organs. Dyspepsia, no matter how produced, is certainly another; and here I may add that cause and effect often change places.

Another cause of dental degeneration is the abuse of what is called "beer," and of the thousand and one vile mixtures sold under the name of wines and spirits. Neglect of cleanliness, and carelessness in the selection of tooth-powders, will also lead to decay of the teeth, and so too will excessive smoking.

These are general causes, and I may also mention fast living, which tends to weaken the whole system, nervous, muscular, and periosteal; and the abuse of medicines, especially mercury.

Now, while sojourning lately for a short time on the other side of the Atlantic, I could not help noticing that *caries* of the teeth, especially those in front, was far more common in America than even in England. But I was struck at the same time with the fact that our Yankee cousins take much more care of their teeth than we do. Dental surgery is quite an institu-

tion of the country. An American goes to have his teeth seen to with as much regularity as he visits his hairdresser; and even those among them who have not many greenbacks in their pockets, have plenty of gold in their mouths.

Well, with reference to my present paper, I shall be quite satisfied that I have done some little good if I can but succeed in impressing upon the minds of a few of my readers these truths: 1. That the teeth are of the utmost importance to the economy of the system. 2. That their decay is dangerous to the health. 3. That this decay can in most instances be checked. 4. That toothache is in nearly every instance curable and preventible.

A tooth consists of three parts, or rather, I should say, is easily divisible by the anatomist into three: the crown, the portion exposed; the root or roots, the portion or portions fixed in the jaw; and the neck, the portion that joins the two, and is covered by the loose gum. Furthermore, every tooth is hollow, and contains the dental pulp, which is well supplied with bloodvessels and nerves, and is extremely sensitive. The greater part of the tooth is composed of what is called dentine, or ivory; in reality it is bone, but much harder in its construction than any of the other bones of the body. The *cementum*, which covers the roots, or fangs, is more nearly allied to true bone, while the covering of the crown, or exposed portion of the tooth, is dignified by the name of enamel. It is intended by nature to defend the crown from decay, it being of so hard a structure that even acids have little effect on it.

If this enamel is worn off either in the ordinary process of wear-and-tear, or by the injudicious use of tooth-powders, one can easily understand how decay (*caries*) of the tooth may speedily follow.

Now, no one will doubt how important it is to possess really good and capable teeth, who remembers that mastication is the very first process of digestion. But mastication does not mean merely the division of the food into portions small enough for the stomach

to have easy power over; it means, in addition, the proper mingling or mixing of the food with the saliva.

Decayed teeth are powerless to perform their duties, but this is not all; they even poison the food—to some extent, at all events—which is partaken of; indigestion is the consequence. Indigestion means badly-formed chyme and chyle; from these the blood is manufactured, and it is needless to remind the reader of the many ills and ailments that may arise from unhealthy or impoverished blood.

It can easily be perceived, then, how caries of the teeth may work incalculable injury to the system. But in most instances decay of the teeth may be checked; and an attempt to do so should always be made, if only for the reason that caries in one tooth, if neglected, is almost certain to affect the others adjoining it, and so the disease spreads.

The chances of a permanent cure depend greatly upon the extent to which the decay has spread. If only a small hollow exists, the dentist will carefully remove the useless and diseased portions, and thereafter just as carefully fill it. If there be a still greater cavity, then there is no doubt that the pulp has suffered, and in such a case the operation will be more tedious, but none the less successful. If, however, the tooth be a mere shell, and that shell itself not sound, it would be folly to go to the expense of the operation; it had better be extracted, and the sooner this is done, the less chance will there be of subsequent suffering and annoyance. Stumps are no good at all, but they may at any time be productive of a deal of mischief. They may act as foreign bodies—indeed, if quite dead they are nothing else—and set up inflammation of the surrounding tissues, which may lead to dire results.

If you make up your mind to consult a dentist as to the filling of a tooth, you will find it cheaper and better in the long run to take advice from a man who really knows his work. Until lately nothing has been more easy than for a person who has studied a little of the art of dentistry, and thinks he knows all about it, to put a brass plate on his door and adopt the calling of dental surgeon. How often, too, do we see in chemists' shop-windows, especially in the poorer districts of London, the notice to the public, "Teeth carefully extracted." The unhappy mortals who enter within the portals, and venture to explain their desires, are often handed over to the tender mercies of some assistant, who, in all probability, hardly knows the curve of a root, and is just as likely as not to put pressure in the wrong direction, and probably break away a portion of the alveolar process of the jaw. The same shops will also sell their customers some stuffing for hollow teeth, with or without the directions, "Carefully wipe dry the inside of the tooth before inserting the filling." The purchaser does as he is told—with what result? Why, that of making matters ten times worse, increasing the caries, making an end of the tooth, and mayhap inducing abscess of the jaw. For various reasons people often neglect a tooth or teeth until it is too late to do any good; perhaps there is no

pain, so they do not trouble; they think that teeth are things that even a man of middle age does not carry to the grave with him; or, perhaps, they are afraid to go to see a dentist, afraid of pain to be incurred.

It is true that for the most part the teeth decay ere a person reaches the age of five-and-forty; but should this be so? I think not. Unless one is in reality constitutionally weak, with ordinary care extraneous decay may be guarded against.

Teeth-filling is a somewhat difficult operation, and one which only an experienced dentist should be trusted to perform. I will not presume to say what is the best kind of filling, though I have a leaning to gold; but it ought to be something that will fit well, be capable of perfect manipulation by skilled hands, and not easily acted upon chemically by anything that may happen to come in contact with it.

I have said that toothache is nearly always curable or preventible. Let me say a word about its prevention first. We should do all we can, then, to preserve the teeth. This, even in the most healthy people, can only be done by a free use of the tooth-brush, and a carefully selected tooth-powder. Tartar, as it is called, is a crust that forms about the neck of a neglected tooth, and never fails to work mischief, either to the teeth themselves or to the adjoining gums, in which by mechanical action alone it is apt to induce sponginess and ulceration. This should never be allowed to accumulate; if it does, indigestion is almost sure to follow, with its attendant miseries and ills.

Remember that all tooth-powders of a gritty nature, or such as contain acids, ought to be carefully avoided. The brush, I have often told my readers, should not be too hard, else it will irritate the gums and injure the enamel. Use the tooth-brush morning and evening, and before and after food. It seems bothersome to have to do this; but it soon becomes a habit—a habit from which no end of good may accrue—and is thought no more trouble than washing the hands.

It is a very commendable plan, that of the Americans, who pay, as I have said above, periodical visits to the dentist. It would be good for Englishmen if they would follow so good an example; but as a rule they do not, and will not. A man sends his mowing machine regularly to be set and seen to, but those natural mowing machines, his teeth, he permits to go to wreck, albeit their soundness may mean health, their decay the beginning of the end.

The causes of toothache must be removed or guarded against. These are often constitutional; but people in fair health may at times be physically lowered through work or worry, or both combined, and it is just at this time they are most liable, if exposed to cold or wet, to an attack of this most painful complaint. Let them guard against exposure at such times, and by a judicious course of tonic and aperient remedies, combined with attention to dietetics and hygiene, endeavour to restore tone to the system.

It would be impossible in one paper to enumerate even a tithe of the numerous causes that give rise to

toothache; but before it can be successfully treated those causes must be found out and removed. I have no royal remedy to suggest for the cure of the complaint, no *eau-d'or*, one application of which will banish the pain. Even if I prescribe cotton wadding, pledget after pledget of it, saturated with chloroform, and held between the teeth until numbness ensues, I do not remove the cause of the ailment, and it may, and doubtless will, return with greater force when the effects of the anodyne have died away.

Is the cause constitutional?—do all in your power between the attacks to bring the health up to par, and try by living by rule to retain it so. A course of quinine, or quinine and iron, during the two or three weeks' interval that usually elapses between periodical attacks of toothache, often does much good. If the cause be local, good may be effected by cleaning

out the hollow tooth, and then rinsing the mouth with lukewarm water in which carbonate of soda has been dissolved. Next, the tooth may be dried thoroughly, and a bit of fine cotton wadding inserted.

But extraction of stumps and filling of useful teeth are, after all, the principal remedies for toothache. Do not delay the operation until there is absolute pain. Such a course is positively cruel to yourself. The extraction of teeth now-a-days need terrify no one, as it can be done painlessly under the influence of nitrous oxide or laughing gas. It is a pity that the administration of the gas entails so much expense. However, it is a saving to a patient in the long run, for the pain of toothache is so distracting as often to preclude the possibility of doing any work, either physical or mental, while the torture lasts.

AN OLD SAILOR'S STORY.

YOU ask for a tale, sir, do you? A true one, too, you say, Of what I've seen in other days, 'fore I was old and grey.

I think I've told you many a time of wrecks and close-fought fights,
Of how we shelled that Spanish port, and charged right up the heights,

And how I've twice been nearly killed, and then of fires at sea,
And tales of how my mates excelled in deeds of bravery.
I've got one little story, though, I haven't told before—
How I first met my old wife, sir: forty year ago or more.

I'd come home then from a good long trip—half round the world we'd been,

And glad we were to get ashore from off the *Ocean Queen*.
Well, me and my mates—a jovial crew—we landed all together,
And we talked awhile of our prosperous voyage, and bright and stormless weather;

So when I left for home that night the clock had just struck ten
(My mother, you know, was alive, sir, and kept a home for me then);

The sky was black, and a damp dark mist hung over the river that night;

And across the bridge, at the farther end, 'neath a lamp's dull, flickering light,

I saw a figure leaning there—a poor girl, thinly clad,
With a shawl thrown over her shoulders, and her face all white and sad;

One hand pressing her wearied eyes, as if to blot out her care,
The other clutching the hard rough wall, with the clench of utter despair;

And as I came close by her, I heard such a pitiful sigh—
I don't know how it was, but a tear *would* trickle from my eye;
For I thought of what would come to her if she were left alone,
With not a friend to comfort her; all hope in this life gone—

So I touched the hand that covered her eyes all tearless there,
And, soft as my rough voice could speak, I bade her not despair.
Somehow it seemed that my kindly word renewed her bitter woe,
For with a sudden sorrowing sob her tears began to flow,

And she murmured something, but it was in some strange foreign tongue,
And wept as though her heart would break, and close to the cold wall clung.

I *could* not leave her sorrowing thus, so I saw her safe that night—
Safe in my dear old mother's care, out of the cold world's sight.

Ah, well! you guess the rest, I see. Her great black shining eyes,
As she blessed me when I saw her next, were stronger than her sighs.

I had to cry for quarter soon: she seemed to understand,
And with a shy smile on her face she gave me her little hand.

They tried to joke me out of it—my trusty mates—you see
They thought a foreign-talking girl would never do for me.
But I married her, and very soon she learned to speak our tongue,

And many a glad year has rolled by since the wedding-bells were rung,

But I never have repented since; a dear wife she has been;
And I always bless that night I came from off the *Ocean Queen*.

Ah! I see what you're going to ask me, sir. How came she to be there,

Left all alone on that wretched night—alone with her grief and care?

We'd been married months before I heard her story fully through,

For you see that at our wedding the only words she knew
Were just to answer the parson with; but she'd very often try
To make us understand by signs her mournful history.

But I heard it all at last; it seems her father had had to fly
From Spain for some small state offence in years now long gone by,

And came, as such men always do, to seek for safety here,
And brought his daughter with him too, to comfort and to cheer.

But he wasn't long for this hard world, for its care and hunger and cold

Were all too much for his Southern blood—Death grasped him in his fold.

His daughter then for days and days dragged on a weary life—
Starving, half dead with toil and want, worn out with the ceaseless strife;

Till, that night I met her on the bridge, in bitterest grief and pain,

She'd prayed that for her another morn might never come again.
But the great and mighty God knew best, for her as well as for me,
And He sent me there to take away her grief and misery.

Ah, well! His ways are clearer now! we bow our heads and bless

His gracious Providence, that gave such love and happiness.