

HEALTH

OPSONINS.

In a former article it was said that one of nature's ways of preventing disease is to destroy the germs by means of a defensive army of cells, the so-called phagocytes, which envelop the microbes in their substance and digest them—eat them up, in other words. But this does not always take place. Either the microbes are in too great numbers for the phagocytes, and so triumph over them, or else the cells, although present in sufficient numbers, appear not to relish the microbes, and fail to attack them. Then the germs multiply without molestation.

Bacteriologists were for a long time puzzled to account for the fact that the white blood-cells would sometimes refuse this feast of microbes, and many saw in it reason to doubt that the phagocytes had any real part in the prevention or cure of disease. But recently Doctor Wright, an English scientist, has advanced a plausible explanation of this occurrence. He says that the phagocytes will not attack bacteria until the latter have been acted upon by a certain substance contained in the fluid portion of the blood, which in some way makes them attractive to the white blood-corpuscles. In other words, the cells of the organism will not eat raw bacteria, but must have them served in a palatable form.

The substance which thus prepares them for ingestion is called opsonin, from a Greek word meaning to prepare food.

The quantity of this opsonin in the blood is not always the same, which explains why a person may be resistant to a disease at one time, and yet later, when again exposed, may succumb.

It appears, also, that opsonin is not a single definite substance, but that each variety of microbe must be acted upon by a separate substance, the opsonin for the typhoid-bacilli, for example, having no effect upon the germ of tuberculosis.

This explains why a person may resist one disease and readily fall a victim to another.

There are many details in this theory not yet worked out, but enough is known to enable it to be employed in the treatment of some diseases. When a person is suffering from typhoid fever, let us say, an examination is made to ascertain the potency of his blood in typhoid opsonin; and if it is found below what it should be, as determined by a comparison with the blood from a number of healthy individuals, steps are taken to increase it. This is done by giving an injection of a culture of typhoid germs which have been killed by heat. The result of this injection is, after a temporary decrease, to raise very markedly the quantity of typhoid opsonin in the blood, and so to make the living bacilli, which are causing the disease, more vulnerable to the attacks of the phagocytes.—Youth's Companion.

TONICS.

A great deal of harm is done by self-drugging for the relief of various real or imaginary ills.

Every man, of course, believes himself a doctor, and often thinks he is better able to attack a cough or a case of rheumatism or a headache, whether it be his own or another's than those who make the cure of disease a special study. All he has to do is to make up his mind what the trouble is—and any one can tell a cough when he has it—and then to take something that is "good for a cough."

There is nothing easier. The only objection to the plan is, that what is good for the cough may be bad for the cough.

So it is with a headache. Almost any pain in the head not due to actual brain disease may be moderated, if not relieved temporarily, by some form of "headache powder"; but a frequent recourse to this means of cure may fatally weaken the heart. When this stops, the headaches cease to trouble, but the patient is not in condition to know or care.

Less serious, but not much so, is the abuse of tonics. A true tonic is anything that promotes the nutrition of the body. This may be done by increasing the appetite and improving digestion, which is the function of the bitter tonics; or by improving the condition of the blood by adding to it the iron it has lost; or by supplying the system with some needed substance, such as fat in cod-liver oil; or finally by stimulating the tissues to increased absorption, an action which is ascribed to arsenic, mercury, and others of the mineral tonics.

But these are not the "tonics" to which people are apt to resort when they run down. They take stimulants, alcohol usually, and think they are getting strong because they feel better after each dose. The alcohol in the "tonic" is often disguised, and the user, perhaps a conscientious teetotaler, would be shocked to learn that what he was taking to give him strength had more alcohol in it than has the strongest whiskey. If the system is seriously run down, a physician should be consulted, who will be able to give what is needed, whether iron, or bark, or gentian, or cod-liver oil, to correct the underlying condition that causes the debility.

It's the easiest thing in the world for a widower to marry a widow.

Some people find fault with a man because he isn't worse.

CASE OF HIRAM BILGER

AN INSTANCE OF THE DREAM ALL DREAM.

You Never Can Tell What Strangencies Any Man May Have in His Heart.

"You never can tell," said Colonel "Men of the simplest and matter of fact exterior might be all about with them, all the unknown to their neighbors, strange indeed.

"We had in Storkville Centre, a sedate, methodical and orderly citizen named Hiram Bilger, owned a small farm which he tilled gently, as he had to do to make he was at it early and late.

"When you saw Mr. Bilger shining in the early morning, in old trousers, a flannel shirt and a somewhat 25 cent chip hat, and with a hunch on his shoulder, to hoe his corn, you thought, in the fulness of one aspect of his life, when you saw him in his black church on Sunday you thought of him in the other. These two seemed bound Hiram in all his ideas, his aspirations, and no one would thought that he ever dreamed of anything else. But you never can tell.

"An uncle of Hiram's died and a bigger and better farm, and little money in the bank. Hiram just as hard as ever after that, the real grit in him, but what from his uncle.

TOOK THE GRIND OUT OF

"Before that he had been comp work every minute to make his meet with just a little over, an had been neither time nor mo the gratification of such fancies might have cherished, though his bers never dreamed of him as ch any; he seemed just staid, stead Hiram Bilger, as in fact circum had thus far always compelled be. But now Mr. Bilger was a pendent man, with means ampie cles if he did have any; and that have one, at least, was soon m parent.

"At the county fair, held in St Centre on the date next follow time when he came into the l tune, Hiram Bilger appeared, no conventional Sunday and holiday black, but in what they called days a fancy suit: a suit with a colored coat and waistcoat and striped trousers. He had always considered as about the most n fact man in Storkville; he had n fore been seen in anything but ck that he worked in and a suit that he wore to church on and yet here was Hiram Bilger, cy suit, with striped trousers! made about the greatest small tion that the Centre had ever k "He worked away thereafter steadily as ever, and he was thrifty; he added all the time to had, and no man could say th

HE WAS NOT A GOOD CH

but he did on occasion indulg as he was now well able to d this one fancy, which probab been cherishing for many ye

"As he had boed the corn o potatoes, he had—though he for a minute a shirking man his labors with dreams of st sors. Steady going and fall had always been and as he mained, and humdrum as he seemed to be, yet he had c him that desire for a pair striped trousers; and when th come he turned his heart ins leight them.

"But really when you con about if there was nothing trordinary about that. I another man, and this one, a man as ever plodded, who desired to own a pair of bla check trousers; the point of a that you never can tell w fancies any man you may have in his heart, though some.

"Whether we carry the b the plans of the building; measure ribbon or sit in t room and direct the busin dream dreams and you ne what those dreams may l mild-mannered man is a p inmost recesses of his bosom, is more than one perforce st a family who would be b tramp.

"No doubt it is a good thi of us that we have to wor our nose at the grindsto might give scope to incl quite so harmless to us as striped trousers or trousers white check."

THE BEST YET

"Zam-Buk is the best hom ever brought into a home the opinion of Mrs. Sarah of Birr, (Ont.) She says,—" had a severe and obstinate skin. I applied Zam-Buk and the skin trouble which all other remedies, went magic."

Zam-Buk cures Eczema, U fula, Poisoned wounds, Feet and all Skin Diseases. Rubb it Zam-Buk is the finest ex for Rheumatism, Salafica, e s-pores and drugists at 50 from Zam-Buk Co., Toronto 3 boxes for \$1.25.

SALT WITHOUT AN OWNER.

Two Thousand Tons Are Lying on Docks in France.

The dock authorities at Sfax, France, are puzzled to know what to do with 2,000 tons of salt, which have been lying in their warehouses without an owner for two and a half years.

The salt, which is in 40,000 bags, was bought by the captain of a sailing vessel, who said it was purchased for the Russian Government. It was put aboard his ship, but a few days after he had it transferred to the quay again, and his vessel sailed a few hours afterward.

No claim has ever been made for the salt, which has been gradually melting for the last two years. The Russian Government denies all knowledge of the purchase.

Mrs. Newlyriche: "Well, of all the impudence."

Mr. Newlyriche: "What is it, Hannah?"

Mrs. Newlyriche: "Them poor first cousins of yours have gone and got themselves the same identical ancesors that you've got!"

BEER STEADIES THE NERVES

GOOD beer, used as a beverage with meals, makes steadier, stronger nerves because it helps the stomach do its work better.

Your own doctor will tell you that the right use of beer is good for almost every adult, women especially.

The little alcohol in beer (less than there is in cider) helps digest food. Get the right idea about beer, and be healthier for using it.

*BEER is a term which covers lager, ale, porter and stout and, in the practice of Ontario brewers, implies beverages made under most hygienic conditions, from Ontario barley (the best in the world) malt, hops and pure water.

ANGRY ... EED.

"When my wife gets angry," remarked Hyker, "she reminds me of a vessel just leaving port."

"What's the answer?" queried Pyker. "She gets her rancor up," replied the party of the prelude.

They Drive Pimples Away.—A face covered with pimples is unsightly. It tells of internal irregularities which should long since have been corrected. The liver and the kidneys are not performing their functions in the healthy way they should, and these pimples are to let you know that the blood protests. Parmelee's Vegetable Pills will drive them all away, and will leave the skin clear and clean. Try them, and there will be another witness to their excellence.

HARD UP

"How frightfully hard up Jones is," remarked Smith. "He never seems to have any money."

"Oh," said Brown, "has he been trying to borrow from you?"

"No," said Smith, "I was trying to borrow from him."



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