

NEW DISCOVERIES



ALL OVER THE EARTH

How to Tell POOR HEALTH from GOOD

By WILLIAM LEE HOWARD, M. D.

"YOU'RE looking fine, Bill," or, "My dear, how well you are looking! What perfect health you must enjoy!" are expressions we hear every day.

They are generally meaningless and often state just the opposite of the truth. To the average layman the personal appearance of a friend or stranger does not reveal the facts about his or her bodily health. Of course we leave out of consideration evidential conditions of a real disease, a wasting affection or the effects of a prolonged illness.

But take the average man or woman of to-day, and what may look like perfect health in the morning may really be the signs of possible death or paralysis the following day or week.

Clothing, facial massage, constant excitement, artificial stimulation—all of these disguise Nature's warnings. Ignorance of the real signs of ill health and too much dependence upon medicine and not enough upon a good physician's advice are the causes of saying: "Bill, you look fine—never saw you looking better in your life!" and hearing of his death the next day.

Just what are some of the signs of perfect or near perfect health and those of approaching illness the average man or woman can observe?

The eyes are the best indicators of health. If the eye is dull, if it is yellowish where it should show white, if the lids droop or twitch, do not tell the individual he is "looking fine," no matter how jovial and hearty he may seem. He has some temporary or permanent disturbance of the liver. The liver cells are clogged and the poison they should throw off through natural channels is banking up in the system and is showing evidence of this in the eyes.

If such an individual the last time you saw him—say, several months before—was corpulent and now has lost flesh, weight, and his neck has shrunk, don't ask, "How did you do it?" Such a reduction of flesh and the shrinking of the neck show a probable cirrhosis of the liver. Unless he is under proper treatment

Where to Look for the WARNINGS Nature Gives of COMING ILLNESS

you will soon hear of his death. If he has waited for these marked signs of the disease before going to the doctor, he is almost certain to die soon.

There should always be a difference of several inches between the measurements of the chest and abdomen in both man and woman—of course in favor of the chest. A man with an abdominal measurement of thirty-four inches should have a chest measurement of at least thirty-eight inches. If it is the other way about, the man is not to be congratulated upon his healthy appearance. I am referring to persons between thirty-five and sixty years of age—the prime of life.

In the matron, as she gets to be fifty or over, this difference is not so important; but the man should never permit his body to accumulate rolls of fatty flesh. He is not in good health who looks puffed in face, has over-red complexion, eats heartily, sleeps well and has the ever jovial appearance we usually associate with fat men.

Such a man is getting fat around his heart. This condition compresses his liver and other internal organs, hardens his arteries and puts those in the brain in constant danger of bursting—apoplexy.

Look at his hands. They are red and puffed. Occasionally his feet swell. He sits around smoking, laughing, but will not take any systematic exercise—it is too much effort. Of course it is an effort, for his heart and lungs are bound down by fat.

Look at another man who shows the same physical laziness and protruding stomach. He is pale, anxious looking—always has some kind of a frown. However, he will stride along at times, be very active in his affairs, and appear to the casual observer as a man in good health.

Get a good look at his eyes and you will see at times a slight puffiness under them. He will show at intervals a heaviness on his feet. All these signs disappear at certain intervals and you wonder at his vitality. The truth is, his kidneys are in trouble but he does not know it.

Such a man or woman needs a doctor's advice, not drugs. If they will carefully heed this advice and adjust their methods of living, dress in loose clothing, cut out all stimulating drinks, commence exercising slowly and not violently, and after perspiring take a cool

or cold shower bath, drink plenty of fresh water, they may get rid of the poisons in their body without harm to their tissues.

When reduced in this way there will be no shrinking of the neck—a sure sign of some form of insidious disease—no flabby muscles, no cadaverous appearance of facial lines. Of course, those forty folds in the neck will disappear—they must.

When you meet such a changed man—clear eyes, shapely waist, hands showing the tendons and veins—then you may truthfully remark, "Bill, you're looking fine!"

But remember!—no drugs or medicines to reduce the result of high living, lack of exercise and too much beer. Just live as you did when a boy of ten, and keep ever in your mind that the result was the outcome of years of accumulation, and that the reduction may take a long time unless your organs have not been too greatly affected.

A man gets out of bed and looks ill—glary eyes, trembling hands, distressed stomach. If you saw him at this time you would say: "Bill, old chap, you are going a bit too fast. Let up—get away and care for yourself." But you generally see him an hour or so after when he has red cheeks, steady hands and a brisk gait. You remark how fit he is looking—thanks to the barber and several cocktails. But the flushed face, puffy hands, yellow eyes ought to tell you he is artificially braced. He is not fit.

A woman's condition of health can be just as easily determined by an acute observer and one who knows something about the psychology of women—as much as one can know about the charming and ever-puzzling sex.

The condition of the eyes is a tell-tale thing just as it is in man. But the condition of her ankles tells better than anything else. If the flesh hangs over the edges of pumps or shoes, if there is the slightest appearance of compression at the ankles so that they look out of proportion to the size of the feet and lower limbs, you may be certain that if you say: "My dear, how well you are looking!" you are not telling the whole truth.

The ankle in a well woman should be such as to show some prominence of the bones and the ankle cavities. Where her corsets bind the hips there should be no fold of flesh. If she breathes entirely from the abdomen and flushes upon any extra effort, you may be cer-

tain that even if at the time she is in fair health ill health will soon follow.

Why? Because she has been binding down and pressing flesh and internal organs—a serious matter with a woman. The shoes or pumps do not allow a proper return of blood to the upper limbs and thence to the heart. The lungs are not being given a chance to take a sufficient amount of oxygen, and the folds showing below the corsets indicate that even there the flesh is being deprived of a clear and unobstructed circulation.

All this means in time a disturbance of the only thing which can maintain good health—unimpeded circulation. The way for a woman to keep her beautiful form is not to bind the flesh, but to free it and see that enough oxygen is taken in to burn up extra flesh.

A woman's hair will tell the story of her health. The hair of a healthy woman will be glossy without being shiny. It will fall around her forehead and neck in waving folds, not remain stiff or hang "dead." It can be bound or rolled in a mass and remain thus with only slight pressure of bands or pins. When shaken out it falls as a mass, the strands or a few individual hairs separating slowly, but always having a tendency to return to the mass. It will fly out in the wind like a fresh pennant, returning again and again to the main tresses.

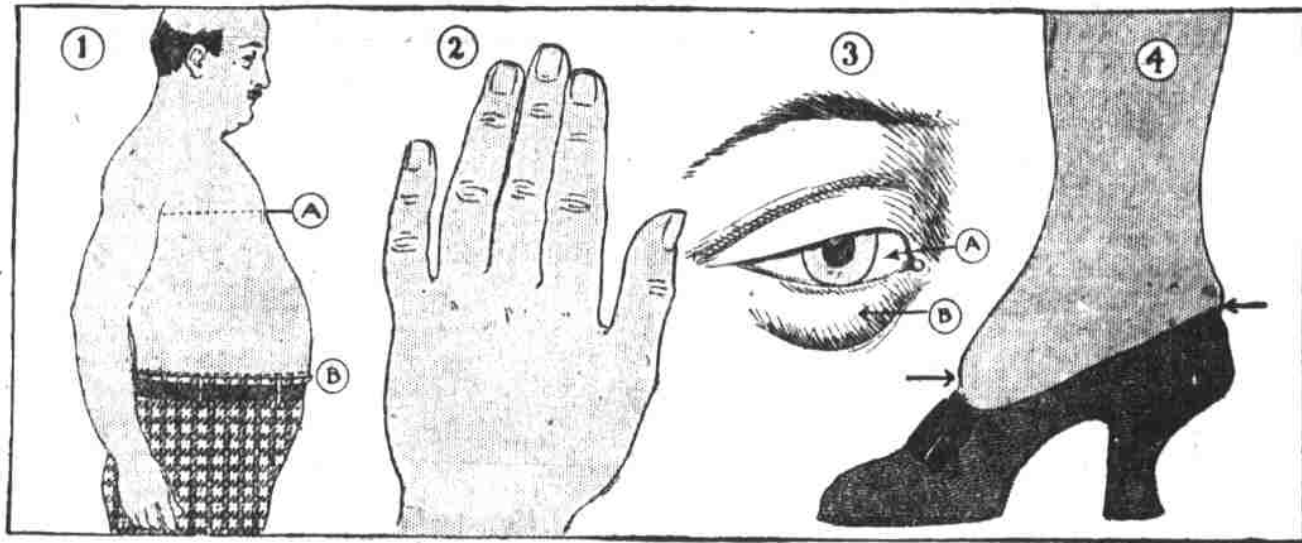
The odor of hair belonging to a healthy woman is distinct and pleasing. It is almost impossible to describe it, but it can always be known by its attractiveness and what might be called a scent of budding Spring. The hair of a woman in poor health has a slightly pungent odor, a sticky scent, or sometimes the peculiar characteristics you notice in dead hair or combs. If the hair has been overwashed and vaselined or pomaded it loses this scent of attractiveness and health. This is for the brunette.

With the blonde there is the same healthy appearance in the movements of the hair when unconfined, but there is always more fluffiness and the ends of the hairs are apt to split. This splitting can be avoided by clipping the ends. It has nothing to do with the health of the hair or individual.

There is not that distinct bouquet to the pronounced blonde tresses there is to the brunette. Absence of it does not necessarily imply ill health as it does in the brunette.

Ill health is shown in the hair by crispness, dryness or too oily appearance. The ends of the hair look "dead." The scent is gone, or else has a fatty odor. It does not stay together in a mass, but tends to collect in groups of strands. It falls out in spots, not as in healthy hair, where the combings are from all portions of the scalp.

SIGNS THAT ILL HEALTH IS NEAR AT HAND.



1.—If a Man's Chest Measurement (A) Is Less Than His Waist Measurement (B); 2.—If His Hands Are Red and Puffed; 3.—If His Eyes Are Yellow (A) When They Should Show White and If They Are Puffy (B) Beneath Them; 4.—If the Flesh on a Woman's Feet Puff Out Over the Edges of Her Shoes.

Why We Are LOSING Our TOUCH

THE sense of touch is very likely to become a lost art in America. A thousand labor-saving devices now take the place of motions which formerly required deftness and skill. Manual dexterity is giving place to mental guidance, and one of the most potent factors in the upbuilding of civilization is being abandoned. The effect of this has been made clear by the restlessness of Americans and the absence of any means to release their nervous energy.

Nervous energy is misapplied unless there is some actual physical outlet. The nervous energy of rage finds its relief in stamping of the foot or in pounding the table with one's fist; the nervous energy of grief finds remission in tears; the nervous energy of suspense shows itself in a feverish pacing to and fro; the nervous energy of joy in quick, rhythmic movements, for, as the phrase goes, "we dance for joy."

For centuries the nervous energy of women has been consumed in two ways—by household tasks and by needlework. Household duties require a good deal of physical stress, and the more of these a woman has to do (short of over-exertion), the less likely she is to become nervous. If, however, not having many household tasks, she turns her attention to some work in which the fingers are employed and which does not demand too close attention, the same nervous perils are avoided. One remembers well how closely knitting and crochet are associated with the calm ease of life displayed by the

women of two generations past. Now household duties are constantly becoming simplified and the knitting needle has been displaced by the looms of commerce.

The same is true of the man of the house. The "handy man" always found something to do which kept his fingers busy and thereby gave the necessary outlet for the nervous tension. A window blind ran awry, a hinge was loose on the cupboard door, a window screen needed new mosquito netting, or a thousand other small things required his attention. Nowadays, however, the "handy man" is becoming a rare specimen, and small jobs about the house are done by paid outsiders.

In the business world the same is true. For two or three decades each year has seen less actual manual work done by the "boss" and more planning. Fifteen years ago every commercial man answered a certain number of letters himself; now everything is dictated. Typewriting has taken the place of the old-time bookkeeper's exquisite script, and the telephone has eliminated the beneficial exercise that occasional calls on clients or customers supplied.

It is largely because of the disappearance of this use of actual physical movement that the nervous restlessness of the age is becoming acute. Dealing at bridge is not a fair substitute for the knitting needle, and smoking cigars incessantly is less soothing than writing a letter in long hand. Poise of mind stands in closer relation to the using of the muscles of the body than many people imagine.

YOU MIGHT TRY--

Cleaning Fish Dishes.

HOT water with plenty of ground mustard added is the best method of freeing dishes, kettles, silver and other utensils from the disagreeable taste and smell of fish.

When You Cook Cabbage.

THE unpleasant odor which cabbage and cauliflower make while cooking can be avoided by dropping a couple of whole English walnuts into the kettle.

For Ink Stains.

THE stains of typewriting can be removed from linen by soaking in turpentine for twenty-four hours—then pour boiling soda over the inked parts, rinse and dry.

To Make Light Biscuits.

IF you put your biscuits in the ice box for a few hours before baking them they will be much lighter than if baked at once.

TOBACCO Smoke Foe of GERMS

WHILE it has long been known that tobacco smoke is a valuable preventive against infection during the epidemic of a contagious disease, it is only recently that an analysis of smoke-laden air in a tenement district has been contrasted with equally dense air in which tobacco fumes were lacking. These analyses have shown that more than one-half of the harmful germs had been destroyed by the tobacco smoke. This fact has unconsciously been the means of preventing large loss of life, as was noted in the recent cholera epidemic in Germany, when workers in cigar factories were found to be immune to cholera, and wherein the victims were mainly from the non-smokers of the city.

Experiments conducted in a cholera-stricken house, one floor of which was occupied with a cigar factory, led Professor Wencke, of the Imperial Institute of Berlin, to the conclusion that the cholera germ cannot endure tobacco

smoke. It was found that saliva containing virulent germs was completely sterilized by five minutes' exposure to tobacco smoke. It was further discovered that although the water used in the tobacco factory, both for drinking water and in moistening the cigars, was full of septic bacteria, not a cigarmaker sickened, and the cigars themselves were free of the deadly peril. Determining to put the issue to a drastic test, a few tobacco leaves were moistened with water, a glass tumblerful of which contained over a million active germs, whereupon it was found that within twenty-four hours every one of the bacilli was dead.

It has been a matter of common knowledge that inflammations of the mouth are fended off by the use of tobacco, and that unhealthy conditions of the mouth can never be traced to smoking, unless the habit is excessive. Now it appears that the smoker in a crowded tenement room is truly a benefactor, to humanity instead of the selfish brute the antitobacco crusaders would have us believe.

Why You Should Never Put MONEY IN YOUR MOUTH

THE reason that children, salesladies, conductors and others should never put any kind of money in their mouths is not because swallowing money, as money, is harmful—for boiled, sterilized and aseptic money can do no harm—but because money is passed through so many consumptive, scarlet fever, diphtheria and other loathsome, germ-laden fingers.

Many trolley car conductors, children, and street vendors have the filthy, and often fatal, habit of holding be-

tween their teeth the coins and notes for which they give change. Yet nobody raises any objection, and few of us realize how dangerously tainted most of the money we handle is.

Dr. M. Langlois, Director of Science of the French Academy, has recently pointed out the dangers of this mouth-holding money habit. He proves experimentally that tainted money is no chimera of the mock-makers. It is a real peril, as much to be feared as cholera.

Dr. Langlois placed various pieces of money in pure, germ-free water. Then he took this water, which had previously been lacking all microbe life, and planted it again in gelatin and on potatoes that had been boiled and sterilized. What he found should fill with alarm those who stick money in their mouths.

Copper coins each had more than seven hundred and sixty thousand bacteria on them. Nickles had one hundred and forty thousand and more, while silver and gold coins carried nearly a quarter of a million germs in their crevices. The reason nickles carry fewer germs is because wear makes them smooth and leaves fewer lodging places for the bacteria.

Banknotes and all greenbacks are so full of bacilli

that after he had counted an average of a million and a quarter to each, the French professor and his assistants quit counting them.

Among the disease-producing bacteria thus found upon the money were germs that cause boils, pus, blood poisoning, pneumonia, tuberculosis, typhoid fever, diphtheria, tonsillitis, and erysipelas. Dr. Langlois advises everybody who handles money to wash their hands frequently in soap and water. Moreover, all money should be baked in a dry oven whenever it is possible, and all banknotes should be redeemed as soon as they become badly worn or even slightly soiled.

Silver coins Dr. Langlois found less dangerous than banknotes and coins of other varieties, because the chemical action of the silver renders many of the germs harmless.

"Never put money in your mouth," says Dr. Langlois, "and try to avoid handling it whenever there are breaks in the skin of your hands. Barbers who make change for a customer and then put their hands on another man's face are constantly spreading disease, and so are sales girls who alternately handle money and eatables like candy."

Why NERVOUS People Are HAPPIEST

NERVOUSNESS is a high tension of the nervous system. It is rather desirable than otherwise to be several degrees nervous. Well controlled nervousness is a sign of good breeding in human beings just as in animals. The higher bred horse the more sensitive and the more delicately responsive is the animal. In a crisis the animal has greater fortitude, bearing pain without flinching. This self-controlled nervous person also does. Again, if well controlled the nervousness stimulates to more and better work.

Nervousness, if ill controlled or not at all controlled is, on the contrary, the cause of suffering to the person, of annoyance to his associates and of inefficiency to both. Uncontrolled nervousness causes flightiness and irritability. These lower the vitality and impair the functions of the heart and the digestive apparatus. Abrupt movements, shrill voices, hasty speech and impulsive, uncertain actions are signs of this state of uncontrolled nervousness.

It is not a misfortune to be nervous if you have a strong and active will. Nervousness in such instances means merely that the strings of the violin are properly tuned. Such nervousness is normal and makes for the greatest success and happiness.

While nervousness if properly controlled is good fortune, neurasthenia is always misfortune. Neurasthenia

is a lowered condition of the nervous system, the opposite of excitation. While a certain degree of nervousness is quite normal, neurasthenia is always abnormal. Nervousness may be a purely healthful state. Neurasthenia is a disease. The depleted condition of the nervous system in cases of neurasthenia may even extend into the nerve fibres themselves and cause a slow atrophy of those fibres. Too low nervous tension causes poor circulation and inadequate elimination of the wastes of the body. Stagnation sets in and the body becomes like a marsh that requires draining.

The neurasthenic is always a person who cannot or will not exercise, while the nervous person is "always on the go." Healthy nerves must be surrounded by healthy muscles, and healthy muscles are the result of exercise. Melancholy persons and those who commit suicide are all in some stage of neurasthenia.

The person of high-strung delicate organization will under extraordinary pressure become irritable or show lack of sound judgment, but the reaction is quick. His anger is a fire of straw. The cause removed, or on being permitted a moment for reflection, his former serenity is restored. The neurasthenic, on the other hand, is "slow to anger" and slow of recovery from rage.

How MUSIC Lures MOSQUITOES to Their DEATH

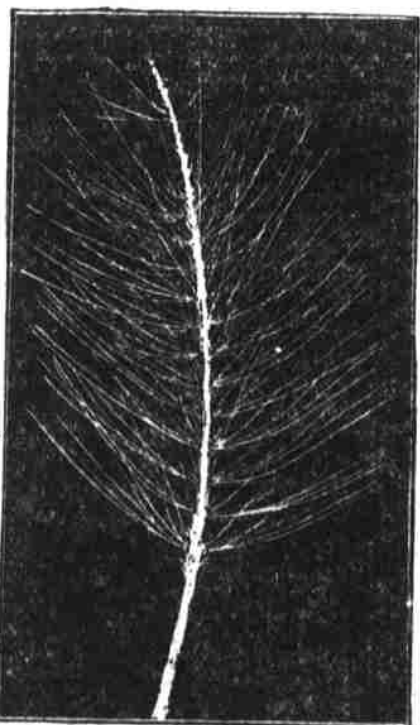
THE Mosquito Commission appointed to wipe out the mosquitoes of Atlantic City and its neighborhood—for which purpose \$26,000 has been appropriated by the County Board—thinks of trying a new method for exterminating the pests, which involves the use of musical vibrations generated by electricity.

The idea was originated by A. DeP. Weaver, an electrical engineer of Jackson, Miss., while engaged not long ago in experiments in harmonic telegraphy, in which a musical note of a certain pitch was produced by electricity. He was amazed to find that when the note was raised to a certain number of vibrations per second, all the mosquitoes, not only in the room where the apparatus was, but also from other parts of the house and from outside, would congregate near the apparatus and be precipitated from the air with astonishing force against it.

He then covered a large surface with sticky fly-paper, and, after sounding the note a few seconds, captured all the mosquitoes in the vicinity.

But it occurred to him that the method might easily be so modified as to kill the insects by electricity instead of trapping them. For this purpose he took a piece of wire window screen, washed the paint off it with turpentine, and mounted it on a board, driving small pins into the board between the meshes at intervals in such a way that their heads were flush with the surface of the wire net. An alternating current of high potential was passed through them, and, when the note was sounded, the mosquitoes which threw themselves upon the screen were instantly electrocuted.

To make the reason for this clear it should be explained that the "song" of the female mosquito seems to be intended for no other purpose than to attract the male. The latter is not a singer, but he carries on his head a pair of very remarkable "whiskers"—if such they may be called—the hairs of which respond sympathetically to certain musical vibrations. It is by



Greatly Enlarged Model of One of the Male Mosquito's Two Whiskers. They Are Hearing Organs, Responding Like Tuning Forks to Certain Vibrations.

means of these whiskers (which are branching antennae), in fact, that the male mosquito hears.

A human being, as everybody knows, finds it very hard to determine with accuracy the direction from which a sound proceeds. It is not so, however, with the male mosquito, which probably has the faculty of judging sound-direction more highly developed than any other animal. And the reason why is simply this: If the song of the female is uttered directly in front of the head of the male, it is perceived with equal loudness with the hairs of both antennae. If the sound affects one antenna (or whisker) more than the other, he turns his head until both are affected equally. Then he knows that the female is directly in front, and he flies toward her. Experiments have shown that he can judge in this way the exact direction of the female within five degrees.

In view of this explanation it will be understood why the mosquitoes, when a certain musical note was sounded, flew against Mr. Weaver's apparatus. At all events, it is obvious why the male mosquitoes did it. The note sounded must have corresponded in the number of its vibrations to the song of the female. But why did the females likewise precipitate themselves upon the wire screen? This is not adequately made clear. The important point, however, is that they did so; and it is believed by Mr. Wheeler that his method employed on a great scale out of doors, might rid whole towns or even districts of the pests, electrocuting them wholesale.

The song of the female mosquito, which has been likened to the distant note of a bagpipe, is not made by her wings, but by the vibration of little shutters which regulate the passage of air through openings for breathing on the sides of the insect's chest. As the air passes in and out, it makes the shutters vibrate. Flies and bees sing in the same way.