

# Herald

## of Health



PYKARA FALLS, SOUTH INDIA

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No. 5

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"The liberation of human beings from physical slavery, of which the above statue is in commemoration, was a great step in human advancement. The liberation of men's bodies from disease and suffering is a greater work for which the battle is on. Every man must decide for himself how he will side in this struggle."

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## Backache

BACKACHE is a very common and disagreeable symptom to which many people are victims. The laity as a rule associate it with some kidney disease. In taking the medical history of patients they say, "Doctor I have kidney trouble," giving as their reason a pain or ache in the back. This may or may not be so, the former being more the exception than the rule. It is not surprising or to be wondered at that pains or aches in the small of the back should be associated with kidney disease. The public has gained this erroneous impression from the quack kidney cure advertisements that flood the market. Who can not remember seeing advertisements accompanied by an illustration of a man, who, rising in the morning is represented as having a kink in his back? His hands rest upon the small of his back. The expression upon the face is that of terrible agony. Every detail of the illustration is anxiety and wretchedness. The wording of the advertisement exhorts the reader not to lose time or trifle with a pain in the back, but hasten for relief to the much exploited kidney cure. The only good results, seemingly, that have come from the so called kidney cures are those cases in which the backache was due to some external cause (which we will mention later) that nature overcame and the kidney cure received the credit. In other words, there wasn't any kidney disease to begin with, and the kidney cure apparently did good. If one really has kidney disease they had best steer clear of these much vaunted remedies as they will lead to an

untimely grave. The public will be kept in ignorance of this matter so long as our newspapers and some of our medical journals will advertise such nostrums in their columns.

Before considering some of these things that may be instrumental in causing backache, let us roughly peep into the anatomy of this region. If the reader will follow us on the illustration of the skeleton in the articles on Anatomy and Physiology, he will notice that the small of the back is spanned by the lumbar vertebrae and sacrum. Perforating the vertebrae we have the spinal cord which at this place gives very large branches of nerves called the lumbo-sacral cord, which supplies nerves to the pelvic organs, lower part of large intestine, and sends branches down the lower extremities. We can easily see why pain might be a prominent symptom in the back. Pain is caused by irritation of nervous tissue and we have just found that this part of the body is richly supplied with nerves. The kidneys are also located in this region one on each side of the lumbar vertebrae. Then lying over all this and connecting the thorax and pelvis we have large, powerful muscles that help keep the body in an upright position.

Diseased conditions and mal-positions of the uterus and ovaries, or pelvic organs in the female cause a great deal of discomfort in the back. This is brought about by pulling on the nerve supply of these organs, which come from the lumbo-sacral cord as we have before stated. This

gives to the patient a dragging sensation. An ulcer of the stomach, or an inflamed appendix will cause pain in the back in some way.

Direct irritation to the muscles and nerves from within and without will cause distress in this region. From within toxins liberated in the body from some of the acute infectious diseases as small pox, cerebo-spinal meningitis, muscular rheumatism, commonly called lumbago, or chronic constipation, all are factors in causing pain in the nerves and muscles of this region.

Disease of the kidney itself may be instrumental in causing pain in the lumbar region, but this is usually an insignificant symptom. We might mention the various forms of Bright's disease, and the various infections of this organ as a possible cause of backache.

Causes from without would be a fall on the back causing a strain of the muscles as well as tearing loose some of the ligaments that help hold the bones together. Then again at times, a very puzzling as well as a very annoying pain in the back, is caused by over-exerting the muscles when they have been unused to much exercise. When one comes in from a long, unaccustomed walk, row, horse back or cycle ride, he need not be surprised that the next morning will find him with a kink in his back when he tries to get out of bed.

Another source of trouble in this region is the slipping of the fifth lumbar vertebrae on the sacrum. Our article on anatomy in this issue speaks of the spinal column as made up of a number of bones through the center of which runs the spinal cord. If one of these bones or vertebrae slip by each other a little it naturally would punch the spinal cord and irritate it. This is what occurs between the 5th lumbar vertebrae and the sacrum. This sounds a good deal like osteopathy, never-

theless it is true; but it is a poor hypothesis upon which to form a whole system of medicine.

This malposition of the lower lumbar vertebrae on the sacrum may be caused by continual faulty positions of standing and sitting, a weakening of the muscles and ligaments of the back, thereby not keeping the bones in right relation with each other.

Again, if you will notice the illustration of the skeleton, you will see lateral projections of bone on either side of the vertebral column. These are called transverse processes. These processes on the 5th lumbar vertebrae are longer in some individuals than in others and are so long and large in some, under extra muscular strain, that they act as a fulcrum on the sacrum, and pry apart and partially dislocate the fifth lumbar vertebrae on the sacrum. All of these factors pinch the spinal cord, which in turn causes pain in the back or repressed pain down the extremities. A detailed treatment of these different conditions would take up more space than we can allow here. Backache caused by the disease of other organs as of the uterus, ovaries, stomach, intestines, appendix, and kidney must receive attention as the primary cause. If the cause is a strain or sprain, rest, hot applications, counter irritation, etc., will effect a cure. Faulty positions and weakening of the muscles must be overcome by systematic exercise to strengthen those parts. Subluxation or partial dislocation of the 5th lumbar vertebrae on the sacrum is treated by manipulation, putting the parts in normal position, and holding them there by plaster-paris casts, followed by a properly fitted corset.

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"It is a comforting and assuring fact that, as we grow in the custom of doing right things and necessary things, we grow also in the ease and the love of doing them."



# General Articles



## The Care and Hygiene of the Skin

MARY W. PAULSON, M. D.

MUCH more importance should be attached to the skin than generally is. It covers the outside of the body as a protection to the tissues inside. In other words, it is the binding for our bodies, and it is more important that our bodies be well bound than it is that a book which we have in constant use be well bound.

### Analysis of the Skin

The average individual has about seventeen square feet of skin. It is made up of several layers of epithelium, and is supplied with abundance of nerves and blood-vessels. The outside layer is horny, and is for the purpose principally of protection. Growing out from this horny layer we have finger nails and toe nails.

In the layers of the skin are sweat-glands, or pores, as they are commonly called. There are about twenty-five hundred of these to every square inch of skin, in some parts of the body, or about two and one half million to the whole area of skin. Each little gland has an opening on the outside of the skin, called the duct of the gland. These sweat-glands, with their ducts, may be spoken of as the lungs of the skin, and are a very important part of its anatomy.

On some parts of the skin we find hair growing in more or less abundance. This grows from the deeper layers of the skin. The skin also contains sebaceous or fat-glands, which are usually connected with the hairs of the skin and open into the same place on the skin where the hairs are found. We find these fat-glands also on the face and head, and other parts of the body where they are necessary.

If these fat-ducts become stopped up, as they do sometimes on the face, the dirt then adheres to the fat in the ducts and produces what we call blackheads; and blackheads mean that there is not a healthy condition of the skin, because the fat is not thrown off as it should be from the skin. This should not be allowed to continue, but an effort should be made to press them out and so give the duct an opening. The face should be washed occasionally with warm green soap solution, to remove grease and dirt which otherwise is not removed.

The skin is supplied with all these tissues for a purpose. It not only acts as covering, but has other important functions. As a covering it protects the very soft and delicate tissues underneath. If one macerates the skin, or removes it by bruises or sores or burns, he can soon discover that there are delicate tissues underneath which when exposed give a great deal of pain. The skin acts as a protection to these many thousands of nerves which are beneath the skin.

### The Sense of Touch

Another important function of the skin is the sense of touch. In the deeper layer, or the true skin, are nerve endings. In some parts of the body, such as the tips of the fingers, the palms of the hands, the lips, and the soles of the feet, we find these nerves of touch more abundant than in other parts.

Another important function of the skin is that of the sweat-glands, which enable it to do excretory work. By means of the sweat-glands, water, which forms the greater part of the perspiration, is excreted,

also some disease germs and poisonous matters.

Inasmuch as the skin is so well supplied with these sweat-glands all over the body, it is extremely necessary that it should be kept in such condition that its glands can functionate. Suppose that the ducts of these glands should be stopped up by substances on the skin, which does occur if the skin is not frequently bathed: then a very important function of the skin is interfered with, and necessarily more work must be done by other excretory organs of the body than they normally should do. Many people suffer from obstructed elimination of the skin, and as a result the lungs and kidneys are overworked, because they must do some of the work which the skin fails to do. History tells us of a child in Europe who, to represent a goddess, was covered with gold-leaf. This child died in a few hours, because the excretory functions of the skin were entirely cut off by the gold-leaf.

#### Regulator of Temperature

The skin is also an important agent in regulating the body temperature. This is done by means of the numerous blood-vessels in the deeper layer of the skin. In cases of fever the skin is hot, particularly if these blood-vessels contain a large amount of blood; and by sponging the body, we reduce the temperature, because we help to furnish evaporation from the hot, blood-filled skin. There is taking place all the time from our skin a certain unobserved evaporation, which is dependent upon a free circulation of blood in the skin. In pale skins this does not occur so well, because in such cases the blood-vessels of the skin are contracted; and as a result we have the internal organs, such as the liver, lungs, and stomach, engorged with blood, and so these organs become congested, producing disease.

The nerves in the skin also affect greatly the circulation in the body. Through

the skin, by the application of hot or cold or other stimulants to the nerves, we can regulate the internal temperature of the body. In fact the functions of all the organs of the body are influenced to a greater or less degree by the skin. This enables one to use the skin as a medium for treating diseased conditions of such organs as the liver, the lungs, the stomach, and the kidneys.

From the above we can see that the care of the skin is extremely important as a means of maintaining the health of the body. Exercise is very essential to the health of the skin. By means of exercise, the circulation is increased in the skin, and the sweat-glands do better work. Indeed, the action of the sweat-glands is greatly dependent upon exercise. The Lord told Adam, "In the sweat of thy face shalt thou eat bread," because He knew it was good for him.

#### Importance of Perspiring

Many people do not exercise until they sweat. Here they make a great mistake. The natural sweat which comes from exercise is very much more valuable than that which comes from simply taking a hot sweat bath, because in exercise more poisons are eliminated than are eliminated in a sweat-bath. The sweat-bath can not take the place of exercise. We are instructed to work out our own salvation; and we can not relegate the work we should do, to the sweat-bath.

Another important duty which we owe to our skin is bathing. Some sort of bath should be taken every day. As a means of stimulating better circulation in the skin, the cold friction to the skin is very valuable. This can be given by means of a rough mitt dipped in cold water and quickly rubbed over the skin. Some people can endure a short cold plunge. However, there are many who can not react well, and such people should only use the cold friction. Both accomplish the purpose,

altho the plunge is more vigorous. Do not take prolonged cold baths, as they do not increase the blood supply of the skin, but rather decrease it.

A warm bath is necessary to keep the skin clean. Even this should be followed by a short cool application to the skin, as the warm dilates the blood-vessels and does not stimulate their contraction. In connection with this warm bath soap-suds should be used, so as to emulsify the fat which adheres to the skin.

Some people have a softer and more sensitive skin than others. Such people should give their skin greater care, particularly in the use of the cold sponge-bath. Also the air-bath to the entire body is valuable.

Diseases of the skin are often produced by soaps. Castile soap and vegetable soaps are not irritating to the skin. If the skin of the hands becomes diseased, as in eczema, make a change in the soap you are using. Some soaps which are highly perfumed are irritating, as is also ordinary laundry soap oftentimes.

Woolen underwear next to the skin may be an irritant. We find that the delicate skin of babies is often affected in this way, so that a rash appears all over the body. In such cases either linen or silk or even lisle thread underwear should be used next to the skin.

Some skins become very dry and scaly, which interferes greatly with the elimina-

tion. Frequently in this condition the other eliminative organs need to be stimulated. Either there is constipation or else the kidneys are not doing proper work. Often these skins are of a sallow, muddy appearance, accompanied by a coated tongue. The diet should be regulated, more fresh foods, such as fresh vegetables and fresh fruits, should be used. The skin should be rubbed with salt every other day until it is in better condition. This salt should be moistened a little before applying it, that it may not be too harsh. The use of the sweat-bath in such cases is also very valuable, followed by a cold sponge to the skin. Exercise daily in the fresh air is extremely important in the cure of such conditions.

If your brain is not clear, or in other words is muddy, please notice if your skin also is not muddy. This means that you need to look after your elimination, of both the skin and other organs.

One often gets an itching of the skin, particularly in the winter-time. This may be due to living in rooms where the air is too dry. Moisture should be added by putting a pan of water on the stove or on the hot coil, so that there is an evaporation in the air constantly. Oftentimes the cause is acidity in the blood, and the diet needs to be changed. The use of very hot or very cold many times aggravates this itching. A bath at body temperature is more agreeable in such instances.

## Temperance

I WAS at one time a guest for a week in the home of one of our most earnest workers in the W. C. T. U. At breakfast I was offered coffee, and at dinner and supper, tea—which I declined. The second morning, as I refused coffee, my hostess said to me, with some sharpness: "Are you going to preach to me at every meal in regard to the use of tea and coffee?"

"Preach to you," I said, "why, I haven't said a word."

"I know it," she replied, "but you preach every time you refuse a cup. I suppose you think that we temperance workers should not use tea or coffee, but I could not begin to do my work without it, and just think what it would mean to go through the strain of a state or

national convention without these drinks."

I smiled as I replied: "Yes, and think what it would mean to a man to go through the strain of a political convention without alcoholic drinks!"

"You don't mean to compare tea and coffee with alcohol?" she exclaimed.

"I believe science places them quite in the same category," I answered, "as nerve poisons and narcotics. I fear if the truth were told, we should find that we temperance women are a great deal more anxious to take the 'bottle from our neighbour's lips' than the cup from our own."

No doubt the great majority of men and women who brace themselves up for the day's work with their cup of coffee or tea fail to recognize that this is actually their form of morning dram; that they are relying upon stimulation to enable them to get through with their day's work.

I once heard a physician refuse a cup of coffee with the words: "No, indeed; I am too wise to begin the day with a stimulant."

Dr. Emmett, the well-known New York physician, declared that a large proportion of the ailments of women is due to the use of tea and coffee, and asserts that if we could bring them out from under the influence of these nerve poisons, we should have taken the first and most important step toward a cure of their ailments.

Understanding the deleterious effects of tea and coffee, one must feel a sense of deep regret at seeing mothers beginning the tea and coffee habit in their little children.

I remember once sitting at a farmhouse table abundantly supplied with the best of milk. The mother sat with her six-months-old baby in her arms, and every few moments gave it a teaspoonful of coffee out of her cup.

"Why don't you give the baby milk instead of coffee?" I asked.

"Oh, it is too much trouble," was the

reply. "Besides, the baby likes coffee."

It is quite evident that the beginning of a species of intemperance may be made in very early infancy. In Germany I have seen mothers give their infants beer, and because the baby smacked its lips, the mother claimed that beer was the normal drink for babies.

But other kinds of intemperance are begun in early childhood. The baby who is fed every time it cries is being taught to put something into its mouth for the alleviation of pain or discomfort. The same child, doubtless, a little older grown, will be soothed, when hurt, by apples, cake, or candy; and so the good Christian mother who prays earnestly that her child be led not into evil is, in reality, teaching the child self-indulgence, and to look to the pleasure of taste as a solace for physical discomfort. It will not be surprising if the child so educated later in life turns to some form of gustatory pleasure in order to forget anxieties.

The most easily obtainable of these narcotics is tobacco, and the next is alcohol. So through the mother's own teaching the boy may be led to visit the saloon, where he will find that which will temporarily drown his discomfort or quiet his pain.

The use of highly seasoned foods produces an irritation of mucous membrane, which calls for alleviation, and this thirst provoked by home cookery may find its quietus in the saloon. The root of the temperance question may be found in the home kitchen.

The use of alcohol in home cookery may also be the origin of a love for alcoholic beverages later in life. The brandied puddings, the wine sauces and jellies, and the mince pies flavoured with brandy, are all lessons in the love for alcohol. But many a mother who has discarded, as she supposed, all alcohol from her dietary, still furnishes it to her family in the shape of cider or home-made beers. I knew an

ardent prohibitionist who said that he was in the habit of putting a barrel of cider in his cellar in the autumn, and allowing his boys to drink freely of it for three weeks, after which he felt sure that it had become deleterious through fermentation. The makers of apple jelly tell us that in three days' time the fermentation of apple juice has proceeded to such an extent that it will not jelly. Therefore, if cider is to be used as a temperance drink, it must be taken as soon as expressed, for if it remains standing exposed to the air, fermentation begins immediately. Physicians who live in communities where cider forms a daily beverage, tell us that the most illtempered and ungovernable drunkards are cider drunkards, and that the most unmanageable cases of delirium tremens come from those who are habituated to the use of hard cider. Home-made beers are supposed by many to be entirely innocent. As one good W. C. T. U. woman said to me: "I know this has no alcohol in it, for I made it myself, and I put none into it."

"How did you make it?" I asked.

"Why, I bought a package of roots and put them to soak in water with sugar and a little yeast."

"Why did you add the yeast?"

"Because the directions said so."

"And do you not know," I inquired, "that the yeast was added to produce fermentation, and fermentation is the process of making alcohol, and that your root beer has itself produced alcohol, so that you are furnishing your family with an alcoholic beverage?"

She was very much surprised and quite horror-stricken at the revelation.

Many of our people do not understand that yeast germs are floating in the air, and that if sweetened fruit is left in a warm atmosphere, it will soon begin to ferment, and that fermentation is the making of alcohol.

The home medicine-chest very generally

contains brandy, whisky, or some form of alcohol; and the good mother feels that this is an absolute necessity in the treatment of diseases, although not allowable as a drink. Many good temperance people are taking patent medicines which are, to a very large per cent, alcoholic. These good people fail to recognize the fact that the apparent improvement manifest after taking the medicine is simply alcoholic stimulation.

There are, however, many other forms of intemperance indulged in by those who are absolutely total abstainers from alcohol in every form.

The modern business man is intemperate in his haste to be rich. He gives himself the smallest possible moment of time for his mid-day meal, and every waking moment is absorbed in the thought of business. He has no time for companionship with his wife and family, and in fact, many business men are almost entirely unacquainted with their own children. I read recently of such a business man walking with a friend and meeting a nurse with a baby carriage. The friend stopped to admire the child, and the business man said: "I believe we have a baby about that age at our house." "Yes," said the nurse "this is your baby."

Women are equally intemperate in their forms of work, not realizing that they may be as dissipated in the adornment of themselves or their houses as if they were indulging in drink.

People are intemperate in speech, not only in matter, but in the manner. We talk loud and fast, and use up a great deal of nervous power in needless gesticulations. We wear ourselves out by our emotions. We are disturbed by little things, and use many needless words in fretting over infinitesimal annoyances.

In the "Woman's Home Companion," Jerome K. Jerome brings a charge against reading as a species of modern dissipation.

He says the young girl, forbidden the saloon and café, muddles her brain with books instead of drink. "Our ancestors," he says, "brewed themselves a bowl of punch. We subscribe to the circulating library. The result aimed at is the same—to be taken out of ourselves. Books have become a modern narcotic."

It would be well if we would give to the word "temperance" a broader significance than we are apt to do. The real meaning of the word, according to the Standard Dictionary, is, "Suppression of any tendency to passionate action; the spirit and practice of rational self-control."—*Mary Wood-Allen, M. D.*

## Tobacco

E. SMITH

TOBACCO is the most widely used narcotic in the world. The annual crop is estimated at 3,000,000 tons. The U. S. devotes about 600,000 acres to its cultivation. The government's revenue from tobacco for the year 1909 was \$57,889,351—an increase over the preceding twelve months of \$6,002,173. The greatest increase of any one product was in cigarettes, this amounting to 1,766,583,714. *The Literary Digest* of August 27, 1910, gives the number of cigarettes on which revenue was collected as 7,874,300,329. The number of cigars manufactured is still greater, being 8,139,030,144. Chewing tobacco takes third place, and there are nearly 32,000,000 pounds of snuff consumed in America each year.

The use of tobacco apparently was learned from the aborigines and was introduced into Europe by the early voyagers, although it is claimed by some that it was cultivated in China at an earlier date. While it is so universally used, I do not find that its use is credited with any benefit to the race, while there are numerous charges against it.

Thus it is said that tobacco is the principal cause of arteriosclerosis and of amblyopia; that it produces functional disturbances of the heart, also hypertrophy and dilation, and that it is a heart depressant. I find one case of convulsions accredited to its use, that being cured by stopping the tobacco. It is claimed that it produces atheroma; that it retards

mental and physical development in childhood and youth, and is highly injurious at all ages; that excessive smoking predisposes to pneumonia, grip and pulmonary tuberculosis, and that fatal results are more apt to occur; that it produces neuritis and neuralgia; that it causes epithelioma; that it is a cause of apoplexy.

Further, it is stated that in many cases of nervous breakdown attributed to overwork, the excessive use of tobacco has certainly been an important etiologic factor. I also find the question raised as to whether any have the moral right to puff its nauseous fumes into the air of our streets where others must inhale its poison; and many advocate prohibition of smoking in all public places. A committee appointed by request of the French government reported that tobacco should be regarded as possibly dangerous at all ages, and especially in youth.

Tobacco is a frequent cause of myocarditis. Chewing and snuffing tend to produce gastralgia. Smoking, neuralgia of the fifth pair of nerves. The practices render the vision weak and uncertain, and in numerous cases have produced amaurosis. Tobacco irritates the mucous membrane of the mouth and throat, rendering it habitually congested, and destroying the purity of the voice.

Nearly all that are addicted to the use of alcoholics are first users of tobacco. As tobacco is a vasoconstrictor, and alcohol a vasodilator, the use of one in a mea-

sure counteracts the effect of the other on the circulatory system, and I think we can safely credit tobacco as being one of the principal causes of dipsomania.

While considerable has been written on the effects of tobacco on the habitual user, the effect upon his progeny has not, so far as I know, been systematically studied; but is it not reasonable to expect that, both physically and mentally, they will be adversely affected? I know that many able men use tobacco; but I also know that among what are termed the lower classes its use is almost universal. The fellows that I see working out their fines on the rock-pile are users of the weed.

A French writer attributes the defeat of his nation, in the war of 1870, to the prevalence of cigarette smoking. Probab-

ly seventy-five per cent of the fires in buildings are caused by careless smokers.

That the use of tobacco is coming to be recognized as an unmistakable evil is shown by the fact that legislatures are passing laws to restrict its use. Corporations have decided that they cannot trust cigarette smokers with responsible positions. Religious organizations are inquiring into the tobacco habits of those that would enter into the ministry. At the University of Nebraska and the University of Illinois the use of tobacco on the University grounds is prohibited. And now I wish to ask whether the medical profession, the medical schools, and the licensing boards are measuring up to what the public has a right to expect of them?

## An Amateur Doctor

FATHER'S a doctor. He has so much business you'd think he'd get rich, but he doesn't. You see we live in the country, and no one has much money, and most of his patients have large families, and father says it takes all they can earn to buy bread and molasses for the children and food for the stock. They haven't any left over for doctor's bills.

Once in a while, when it's a real stormy night and father hasn't any calls to make, he'll say, "Well, chicks, let's have a good time to-night." Well—just that minute the bell will ring and someone wants father to go out to the Four Corners or, worse still, to the Junction. It is so discouraging.

Well, in this story I'm telling they wanted him out on Blueberry Isle—the lightkeeper had rowed in for him. It was very rough, and he was just as wet, but he didn't seem to know it, he felt so bad.

"I don't know as you'll want to go, Dr. Morison," he said; "but little Lauretta's awful sick—we think perhaps she's swallowed something—but it's a terrible bad

night. I could 'a got in quicker with my motor, but she's shallow, and I was afraid we'd get swamped, so I brought the dory—she's safe enough."

Father was taking off his house-coat and putting on his big boots and his storm-coat, and he was ready to go the quickest, he's such a quick man! And he kissed mother and said if they sent for him to go to see Johnny Carr before he got back in the morning, to give the messenger the tablets in a little red box on his desk. And when he kissed me he laughed.

"Why, Mary, child, don't look so blue! You ought to be thankful I haven't got to take Snowdrop out such a night."

Snowdrop's our horse, but she's black as night; it's just some of father's fun naming her Snowdrop.

After mother had taken little sister Lou up to bed, Max, said, "I tell you what Mary Morison, I'm never going to be a doctor—they work too hard and don't get any money to save, and they don't have sleep enough and have to eat on the run, and they don't have any leisure."

"Why I thought surely you would be a doctor, Max!" I said.

"Well, its just grind—grind—and your time's never your own. I want to make money for you, Mary. I want you to have a blue silk dress like Elsie Starr's and a diamond ring and a little gold watch with your monogram on."

"It would be nice," I said, "but I'd rather be twin sister to a doctor that does as much good as father than have all those pretty things."

Just then the door bell rang. It was Ethel Lindsay to see if mother knew anything to do for her grandmother's toothache.

Mother took a bottle of oil of cloves and some cotton and some hops to put on outside—they make you sleepy, you know, and help the pain—and went along with Ethel.

"Mother's a born doctor's wife," said Max. "When I marry I'm going to find a wife just as near like her as I can."

"I don't blame you," I said.

Just then someone rapped at the back door. This time it was Joey Cutler, who's in our grade at school.

"Where's the doctor?" he said. He'd been running, and he was all out of breath.

"He's out. What's the matter?" asked Max.

"Oh, our baby's awful sick!" said Joey. So hot! and mother can't get him to sleep. She says she's afraid he's going to have a fever, and she wanted the doctor right away;" and Joey almost cried, he felt so bad. His mother lost little Jacqueline, her only other child besides Joey, years ago, and this is a dear little baby, quite new, less than a year old.

"O Max!" I said, "why don't you go?"

"I don't know anything about fevers," said Max.

"Why yes you do," I said. "Quinine pills and a vinegar sweat—you know father always gives those two things, and how it

helped you when you had that feverish cold, two weeks ago."

"So it did," said Max; "brought me right up again, didn't it?" You find the quinine while I get my coat."

"And sometimes cracked ice is good to put on the head," I said, as I went for the quinine. I didn't have to hunt, father has everything labelled and in perfect order.

Max was all ready then, and I said "What would you think of mustard plasters for the soles of his feet? Doesn't that bring the blood down out of the head?"

But Max said that was too severe for a baby, so he took the quinine, and he and Joey started off running—Joey lives half a mile away. I watched them out of sight.

I wanted to go, too, but I couldn't leave Lou alone, and pretty soon mother came home. When I told her about the baby, she said a vinegar sweat couldn't do any harm, and perhaps it wasn't much sick, anyway, but she was afraid Max didn't know how to use quinine. Mrs. Cutler is always so frightened when anything ails one of her children.

It was ten o'clock when Max came home. Nine's our hour, but mother let me stay up to hear about little Charlie—that's the baby's name. Max said when he got there the baby was lying on the bed, and so hot, poor little fellow! And when Mrs. Cutler saw it wasn't father she burst right out crying. And she said she knew the baby would die—it acted just the way little Jacqueline did.

But Max wasn't scared a bit. He sat down side of the baby and looked at his tongue with a spoon, and felt his pulse, and then he told Mrs. Cutler that it seemed to him the baby was sick just the way he was a few weeks ago, and father made him well right off in a day, and he knew just what father did for him, and he'd do the same for the baby if she wanted him to.

She seemed all discouraged, but she said he could try. Then he gave the baby a tiny piece of quinine pill—he didn't dare give him much. The baby cried, and I didn't wonder; pills are horrid when you break them. I always put a whole one way down at the roots of my tongue and swallow quick—and even then I hate them.

Then Max told Joey to bring him a hot stove-cover and some hot water and a basin and the vinegar jug, and Mrs. Cutler got him some pieces of flannel, and he wrung one out of the hot water and vinegar and put it round the hot stove-cover, and then the dry flannel 'round that—just the way father does—and he put that into the foot of the baby's crib, and then he put the baby in and covered him all up with the bedclothes, except his face. And the vinegar and hot cloths were all steamy, and Max had a heap of clothes over the

little fellow, and by and by he got all quiet and fell asleep.

Max stayed a little after that; and before he left the baby's little head was all moist, and his little hand was damp, too, felt just like a roseleaf, you know, the way babies hands ought to feel. And Mrs. Cutler was so pleased. But she wanted father to come over the next morning, just as soon as he got back from Blueberry Isle. He came early. Little Lauretta was lots better, and when he went to Mrs. Cutler's the baby had slept all night and only had a little cold.

Mrs. Cutler told father that she was surprised at Max; he was a born doctor and knew a great deal about illness for a fourteen-year-old boy. Max is all wrapped up in fevers now; he's reading about scarlet and typhoid and yellow and slow. I'm glad, for he is a born doctor; and I'm learning all I can, too, so as to help him. —*The Congregationalist.*

## Simple But Effective Exercises

CHARLES H. LIEBE

TEN years ago I boarded a steamer in the Orient bound for San Francisco. I was at that time a hollow-chested, flabby-muscled dyspeptic, left in that condition from an attack of pneumonia and afterward a long siege of malarial or miasmatic poisoning. My weight was less than one hundred thirty pounds. A few days out of Manila, I began some exercises, and adopted a change in habits. To these I largely attribute the fact of my return to my former good health.

My first precaution was to know the articles of food that did not suit my digestive organs, and to abide very strictly by that knowledge. That was the splendid foundation upon which I began to build. My daily exercises ran about as follows. I retired early, and arose early, at a regular time each morning. Getting out of bed briskly, I stood erect on the floor, hands on hips, and drew ten full breaths

of fresh, pure air from an open port-hole. I made each exhalation as well as the intake as complete as possible. This finished, I caught an iron beam over my head with both hands and went through an exercise which consisted of drawing my body up and letting it slowly down by means of the muscles of my arms and shoulders. I did this several times. Then I dressed, and took a short walk to taper down the exercise, all the time breathing deeply.

After I had arrived at my home in America, I kept up the good work begun on shipboard. It worked splendidly. My general health improved greatly; my muscles grew harder and larger, and in a year I could expand my chest six inches. The difference in the size of my arms before and after was almost beyond belief.

# Anatomy and Physiology

## The Skeleton

### The Spinal Column

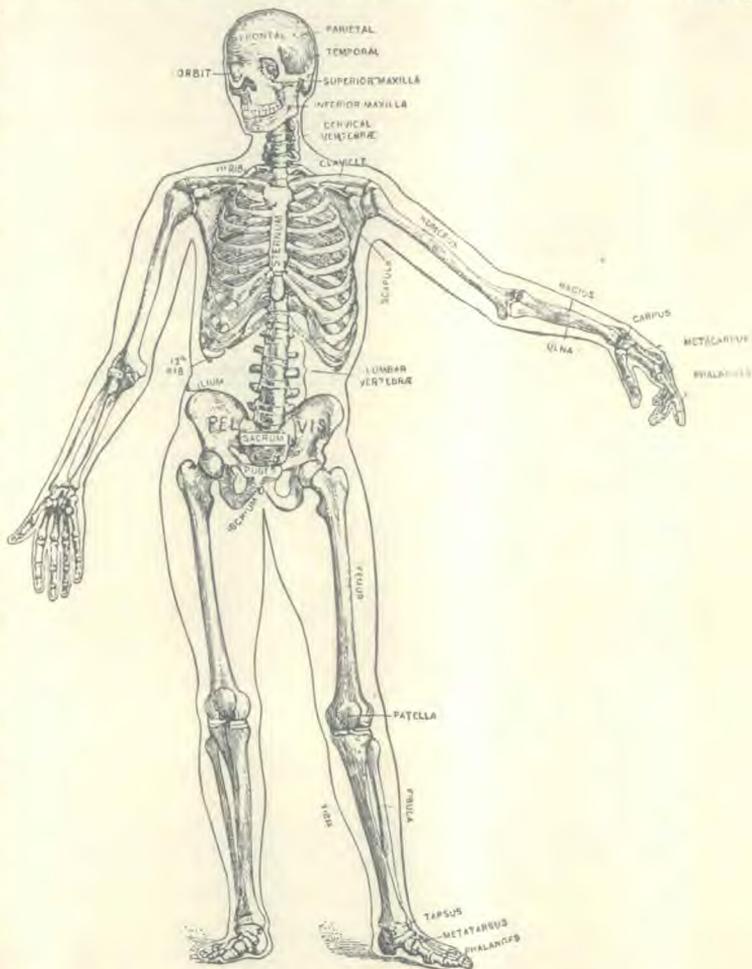
The spine is a flexible column formed of a series of bones called vertebrae. The thirty-three bones that comprise the vertebrae are divided into five sections named according to their location, as follows: The cervical consisting of seven bones; dorsal, 12 bones; lumbar, 5 bones; sacral, 5 bones; coccygeal, 4 bones.

The vertebrae vary in size and in shape. They are placed one upon the other, thus forming a support for the trunk and head. The use of the vertebrae is to protect the spinal cord and to serve for the attachment of muscles. The first vertebra upon which the skull rests is called the atlas. The twelve dorsal vertebrae join with the ribs on either side.

### The Skull

The skull is considered an expansion of the vertebral column. It is the bony framework of the head and contains a cavity for reception of the brain cells, nerves and membranes. The bones of the skull are divided into two

classes—the cranial, consisting of eight bones, namely, one occipital, two parietal, one frontal, two temporal, one sphenoid, and one ethmoid. The bones of the face are two nasal, two superior maxillary,



two lacrimal, two molar, two palate, two inferior turbinated, one vomer, and one inferior maxillary.

### The Thorax

The thorax, so called, is that part of

the body that goes to make up the chest. It forms a protection for the organs of respiration and circulation, enclosing one of the cavities of the trunk, known as the thoracic cavity, which contains the heart, lungs, trachea, œsophagus, and the vessels attached to the heart. It is formed by the bodies of the dorsal vertebrae behind, the ribs and cartilages laterally and the sternum in front. The cavity is bounded below by the diaphragm which makes an attachment for several sections of its muscles.

There are twelve ribs on each side: these are of different shapes, conforming to their location. They serve for the attachment of the several muscles of the chest and abdomen. They are all connected behind with the dorsal vertebrae of the spine, and the first seven are connected with the sternum by the costal cartilages; these are called true ribs. The remaining four pair are called false ribs: of these, the first three are attached in front to the costal cartilages and are termed the vertebro-costal, while the remaining two, being unattached in front are known as floating ribs.

#### The Pelvis

Below the diaphragm, and formed by the pelvic bones, we have the second cavity of the trunk called the abdominal cavity. This contains the organs of digestion which will be discussed later.

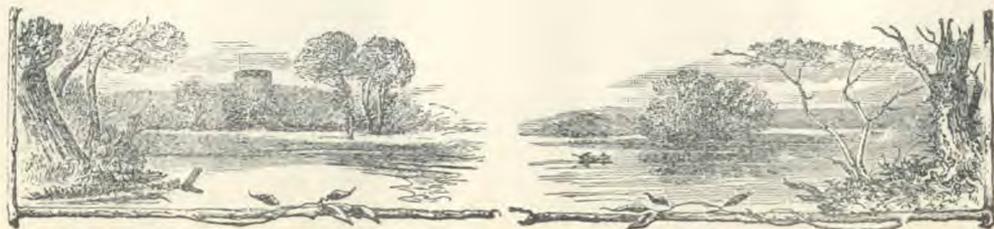
The pelvis is a basin like cavity formed by the sacrum, coccyx, and two ossa innominata. It is divided into two parts—

the brim and the cavity called the pelvis. The latter contains the organs of generation, the rectum, the bladder, the uterus and the blood vessels. The outlet is formed by the pubic arch in front and coccyx behind, laterally by the ischii, or rump bones. The diameter of the pelvis in females is about  $4\frac{1}{2}$  inches, in the male  $3\frac{1}{2}$  inches.

The sacrum is a curved, triangular bone, situated between the two ossa innominata and forming with the coccyx the posterior part of the pelvis. The ossa innominata are situated on either side, and form the brim of the pelvis. They are divided into three parts—the ilium, the ischium and pubes. In adults these become consolidated and form one bone.

#### The Limbs

There is a great similarity between the bones of the upper and lower extremities. The bones of the shoulder consist of the clavicle, or collar bone, which can be plainly felt and seen on the upper front part of the chest and the shoulder blade, which connect with the arm bone and trunk by their muscular attachments. In the upper extremity the humerus extends from the shoulder to the elbow, while the femur extends from the hip to the knee. The ulna and radius make up the forearm which corresponds to the tibia and fibula of the leg. The carpus of the wrist are the tarsus in the ankle. The hands have metacarpus while the feet have metatarsus. Both hands and feet have phalanges.





## Zwiebach and Breakfast Toasts

THE word "zwiebach" comes to us from the German, and the literal meaning is twice-baked. Of course it refers to bread which has been baked a second time. We have a similar preparation in England called rusks, but the bread from which rusks are usually prepared is sweetened. Zwiebach is prepared from plain bread, either white, wholemeal, or brown bread, according to choice. Ordinary household bread or white bread makes a more crisp and less tough zwiebach than the brown or wholemeal varieties, because it contains more starch and less gluten.

To prepare zwiebach it is always best to use good, light, stale bread, which is cut into slices about half an inch in thickness. If these slices are large cut them into two pieces. The bread is then placed on the clean rack of the oven or in plain tins or, better still, perforated tins. The zwiebach may be piled up if the slices are placed very loosely over each other, and ample space is left for the hot air to enter. A very hot oven does not produce satisfactory results, and is quite likely to burn or scorch the bread. But there is no difficulty in preparing a nice even grade of zwiebach with a rich, light brown colour by using a slow oven. It ought to be possible to prepare zwiebach easily in almost any home either by the use of the kitchener oven or gas oven. It should be baked until it is toasted through the entire thickness, so that it is crisp throughout. In this condition it will keep crisp in a dry place for several days, but not very long on account of the dampness which is sure to penetrate in time.

Zwiebach can also be obtained already prepared. In this case the bread is specially prepared and the results are naturally more satisfactory than they would be in a private home. Either brown or white zwiebach is supplied. But by a little practice anyone can soon learn to make a good grade of zwiebach which, when properly prepared, makes one of the finest of health foods obtainable.

The second baking renders the bread not only sweeter but also more digestible. A considerable amount of starch is changed into dextrin by the prolonged heat, and the zwiebach is therefore said to be dextrinized. Dextrin is an intermediate stage between starch on the one hand, which possesses no sweetness, and sugar on the other hand, which is exceedingly sweet. It is the presence of this dextrin that gives the delicate and pleasant sweetness to the zwiebach. Furthermore, zwiebach requires thorough mastication, and that is always desirable, at least in the case of all breads and cereal preparations. The better we chew the bread the more quickly and easily it is digested and assimilated into the system.

But there are many other uses for zwiebach besides that of a bread, and we give below a variety of breakfast toasts, all of which are prepared from zwiebach. In preparing zwiebach to be served as a toast it is often desirable to soften it by the addition of a very little hot milk or hot thin cream. Some may prefer to use hot fruit juice for this purpose, which is equally successful. Whatever hot fluid is used, it should only be applied to the

surface of the zwiebach for a few moments so as not to allow it to penetrate through the thickness of the slice, and thus speedily make it soggy and perhaps even tough. After slightly moistening the zwiebach with the hot fluid, some variety of stewed fruit which has been properly prepared and thickened with a little cornflour is poured over the zwiebach while hot, and then it should be served without further delay. Besides fruit many other preparations can be used in the same way. We give below just a few varieties from "Science in the Kitchen," which ought to prove suggestive so that the number can be multiplied by the cook.

*Apple Toast.*—Fresh, nicely-flavoured apples stewed in a small quantity of water, rubbed through a colander, sweetened, then cooked in an enamelled saucepan in a slow oven until quite dry, make a nice dressing for toast. Baked sweet or sour apples rubbed through a colander to remove cores and skins are also excellent.

*Banana Toast.*—Peel and press some nice bananas through a colander. This may be easily done with a potato masher or, if pre-

ferred, a vegetable press may be used for the purpose.

*Berry Toast.*—Canned strawberries, blackberries, or raspberries may be made into an excellent dressing for toast.

#### A Breakfast Dish

Take some large tomatoes, cut them in half and scoop out the inside. Break some eggs and put each in a cup, and slide one egg into each half tomato. Put a little chopped parsley on each, and bake in the oven until the white of the egg is set. Serve on rounds of toast.

#### Stuffed Tomatoes

Take some large tomatoes, cut in half, take out the pulp. Make a stuffing of grated nuts, bind with one egg, and fill up the tomatoes. Sprinkle a little grated cheese and breadcrumbs and a dab of butter on each tomato round. Place in a tin, and bake in the oven for twenty minutes, and serve on croutons.

#### Vegetable Marrow Stuffed

Grate some nuts, put a half quantity of breadcrumbs with them, bind with one egg. Take a good sized marrow, cut in half, scoop out the seeds, put in the stuffing, place it in a cloth upright in a saucepan with water and steam for one hour.—*Herald of Golden Age.*

## Current Comment

### The Medical Research Fund

THE Honourable Sir Charles Lukis addressing the Supreme Legislative Council last week on what was being accomplished by the Medical Research Fund, said: "Sir Harcourt Butler in his presidential address at the meeting of the first All-India Sanitary Conference, aptly remarked that the basis of all sanitary achievements in India must be a knowledge of the people and the conditions under which they live. This remark it must be remembered is true not only as regards their habits and customs but also as regards

their surroundings." The speaker makes it very plain that those who are interested in preventive medicine not only have to deal with ordinary sanitary measures as drainage, water supply, etc., but they have also to contend with various biting insects that are responsible for Malaria, Yellow Fever, Plague, Sleeping Sickness, and Kalazar. It was plainly demonstrated that the Plague Commission and the Indian Research Fund were not only responsible for the saving of many lives but also of money by being able to get at the primary cause of these diseases and strike at the

very root of the trouble. To illustrate, it is the *anopheles* mosquito that is responsible for malaria, and it would be time and money lost to try to kill off all the mosquitos of India. The research has made possible our knowing this. Then again the breeding place of these harmful mosquitos is under the foliage of our own gardens or wells; in other instances, it is public or larger bodies of water. We must know where to strike and then strike hard.

Sir Charles Lukis also says that the *stegomyia* mosquito which is responsible for Yellow Fever abounds in India, and means are being adopted to combat the disease before it enters the country. His theory that plague was spread by the rat flea has been demonstrated beyond doubt. When plague invades a town or village it is usually conveyed by fleas carried in the clothes or bedding of persons coming from an infected area, or else the fleas are brought in by means of bags of grain. Several hours exposure to strong sunlight will kill those in clothing and bedding, but those in grain are a harder proposition.

Sleeping sickness or trypane-somnosis is not a disease of India at present, but we do not know when it will be in these days in which disease spreads so fast. So the commission will search out the biting flies of India.

Kalaazar is a chronic disease, usually fatal, associated with great enlargement of the spleen. Formerly it was supposed to be of malarial origin but this has been shown to be incorrect. There are a great many things concerning the parasite that carries this disease that we do not know about, so the Research Fund is going to bring to light some of the things we desire to know in order to be able to combat the disease intelligently. In India there are two varieties of these parasites; one of them causes the fatal disease known as

Kalaazar, while the other gives rise merely to a local sore which is known by various names such as Delhi boil, Simla sore, etc., and there are reasons for believing that the two parasites are mutually antagonistic. Sir Charles Lukis also looks forward to the time when we may possibly vaccinate against Kalaazar much the same as we do against small pox at the present time.

### Crusade Against Tuberculosis

THIS is a warfare that is waged in every civilized nation and it is marvellous the number of victims this dreaded disease claims every year. We see no reason why India should be behind in this crusade and so we are glad to learn from an article in the *Times of India* that an aggressive campaign is being inaugurated against the great White Plague in this country.

The beginning of this crusade is made possible by the gift of Mr. Ratan Tata which amounts to Rs. 15,000 a year for ten years. Those who are controlling the campaign intend to begin on a small scale. They are going to refrain from a large outlay of money on expensive sanatoria at the start. The already many victims in India numbering more than 5,000 reported deaths during the year 1910 shows what there is to be accomplished. Tuberculosis is reported as being terribly prevalent too among the purdah women. It is planned to take those who are beyond the hope of recovery and isolate them. Those who will be amenable to treatment will be taken to hospitals where they may recuperate their health. Much is expected of Tuberculin injections given in accordance with the *opsonic index* of the patient. There can be no doubt that sanatoria must eventually grow out of such a movement as means and circumstances permit.

The dispensary is considered a great factor in the fight against Tuberculosis. It will be conducted as an educational

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# : Mother and Child :

## Managing Children

CHILDREN not only imitate our faults, and suffer by our carelessness, but govern us through our weaknesses. A friend came to visit me, and brought a generous, frank, and manly boy four years old: but he disturbed our whole circle by his constant crying. This habit was not in keeping with the brave, proud, independent character of the child; I therefore felt a curiosity to find the cause. My first discovery was—*he never shed a tear.*

His mother wished to take a trip, but could not take her boy.

"Leave him with me."

"He'll torment the life out of you."

"I don't think so."

"I will, indeed, be most grateful. You may whip him as often as you please."

"I should not strike a child, except in a most extreme case."

"Then you can do nothing with him."

She had gone. The next morning after breakfast Willie asked,—

"May I go and play in the yard?"

"It rained last night, and it's too damp now. You may go at ten, not before."

"Boo, whoo, whoo"—rest. I kept quietly sewing.

"Boo, whoo, whoo"—bass. "Boo, whoo, whoo"—tenor. I sewed on. "Boo, whoo, whoo"—double bass. "Boo, whoo, whoo"—falsetto—rest.

"Now may I go?"

"You may go at ten o'clock."

Concert repeated, I silently sewing the while.

"Ain't your head most ready to split?"

"No."

"Mayn't I go out now?"

"Not until ten o'clock."

Concert resumed—rest.

"Ain't you 'most crazy?"

"No, not at all."

Concert resumed, with the addition of throwing himself on the floor, and knocking his feet up and down. After a while:—

"Ain't you most crazy yet? Why don't you shake me and call me the baddest boy that ever was, and send me out of doors?"

"Because you are not going out until ten o'clock."

Concert resumed, with the addition of bumping his head as well as his toes—rest—a pause. Then picking himself up, he stood erect before me, with his hands in his pockets.

"Why don't you whip me, and send me off to get rid of my noise?"

"Because you are not going out until ten o'clock."

He stood a moment.

"If I bump my head, ain't you afraid it will kill me?"

"Not in the least."

"But it does hurt me awfully."

"I am happy to hear it."

He drew a long breath.

"What *can* I do next? I's done all I knows how."

"See if you cannot think of something else."

"May I take my blocks?"

"Certainly."

At nine he started up:—

"Now may I go?"

"That's nine."

He went back to his blocks without a murmur.

At ten he went out.

It had been his custom to kneel by his mother, say his prayers, and hop into bed. I wished him to kneel with me, by the

bed, and say his prayers slowly; and then I would make a short prayer for him. The arrangement did not please him; so the third night he gave battle. Being tired, my head did feel as if it couldn't, or rather wouldn't, bear it. Out of all patience, I determined to give him a good whipping; but never having struck a child, I was not quite hardened enough to take my slipper, and couldn't see anything else. As I looked around, a voice, my God speaking through my conscience, asked, "What! whip in anger? whip a little boy because he cannot govern his spirit, when *you* cannot govern your own? Another than the boy needs to be prayed for." And, kneeling, I asked my Father to give me His strength, His grand patience, with a disobedient, self-willed child. As I kneeled, Willie crawled under my arm, and commenced to say his prayers very slowly, and kept still while I prayed a few words, and then asked,

"Now mayn't I pray myself?"

"Yes, darling."

And these were his words: "I's a real mean little boy. She wont do nothing ugly a bit, and I's made her head 'most split. O God, don't let me be a mean little boy any more at all."

The splendid little fellow had had a fair trial of strength, and was conquered, and surrendered manfully; and I had no further trouble or annoyance during the seven weeks he stayed with me.

But how nearly I lost my advantage ground! If we would *rule our own spirits*, how easy it would be to rule our children and our servants.—*Congregationalist*.

### Infants Food

EVIDENCE was given at a recent inquest on a child which, according to the doctor, had died from starvation, that it was "given condensed milk, olive oil, and gin." No wonder the child died! "Bits of what we have" is the diet reported of

an infant of four months, and it is not strange that the little one succumbed to the treatment.

One of the leading daily papers has recently called attention to the chloroform that is sometimes found in cheap sweets. Mr. J. C. Bell, public analyst for Cheshire, states in his quarterly report that out of six different sweets which he analysed, half contained traces of chloroform. There is no doubt but that the presence even in small quantities of chloroform in sweets must render them dangerous, for the result is an intoxicating influence upon the child. The common habit of taking sweets in spite of all the protests that have been made against it is steadily gaining ground. In our opinion it is one of the most pernicious habits of the rising generation. Certain varieties of the more expensive sweets also contain a drop or two of brandy, wine, or some other form of alcohol.—*Good Health, Eng.*

GIVE your children encouragement rather than criticism, sympathy rather than reproof, and, while they are in the awkward age, at least, do not add to their self-consciousness by constantly drawing attention to their faults.—*The Continent*.

### Crusade Against Tuberculosis

(Concluded from Page Ninety)

system where skilled physicians and nurses will teach tubercular patients those things so essential to the prevention and cure of this disease.

The co-operation of large manufacturing centres will be solicited where in these factories dangers so imminent to the taking of tuberculosis may be eliminated. So with the isolation treatment, education, and co-operation, great results may be expected. It is along these lines that Dr. Woods Hutchinson said that with \$5,000,000 in five years Tuberculosis could be wiped out of New York City.

# Rational Home Treatment

## Chronic Neuritis

V. L. MANN, M. D.

A NEURITIS that has passed the acute stage and has become chronic is oftentimes very discouraging to both patient and physician. This is sure to be the case if we were to rely upon drugs alone for a cure. Medicines play a very small part in the treatment of this disease. Neuritis in becoming chronic may fasten itself upon any portion of the body. It being an inflammation of the nerves, follows their course. It may affect any nerve, but the usual localities are the face, arms, and legs. In the latter it follows the sciatic nerve, and hence is commonly called sciatica.

It does not rest in the scope of this article to give the causes, prognosis, pathology, and symptoms of the disease, but merely to give some suggestions on its treatment omitting internal medicine.

The first and simplest thing would probably be hot applications. These may be administered in the form of fomentations which are cloths wrung out of hot water and applied to the affected part. Turpentine stupes may be used, which are similar to fomentations. That is, pour turpentine in the liquid out of which the cloths are wrung. These applications may be used several times a day, care being used not to blister the skin of the patient. Mustard plasters, or local applications of Tincture of Iodine are sometimes useful, but will not accomplish any more and possibly not as much as the first named applications.

The author has found the heating compress a very useful adjunct in the treatment of this malady. The affected parts

are fomented, after which the arm or leg as it may be is wrapped with several thicknesses of gauze wrung out of cold water. This should be covered with a dry flannel; or outing flannel. These dressings may be retained during the night, but should be removed as soon as they become dry.

Electricity, a much abused remedy, is very useful at times. For the inflammation and pain, galvanism is used and serves a very good purpose. The positive pole is placed upon the nerve or over the seat of pain, and the negative indifferently placed. Static electricity in the form of the "Morton Wave Current" may also be used to an advantage in the cases where pain is not a factor. This form of the static current brings about much the same result as the Faradic current. They are both excellent factors in regaining the tone of partially paralyzed muscles. These various forms of electricity may be used every day, or on alternate days, 10 minutes at a sitting. The strength of current should be suited to the individual.

The Arc Light or Therapeutic Lamp is constructed on the same principles as our arc street lamps. It consists of two carbons heated to incandescence by electricity. The heat and light is focused and reflected along the course of the affected nerve. It is well to grease the part well before applying to avoid burning. This may be used 15 to 20 minutes daily.

Massage like electricity is a valuable aid in restoring lost tone to muscles, and may be used 15 to 20 minutes daily. Care should be exercised not to increase or ir-

ritate an already existing pain with the various remedial agencies especially massage and electricity.

In Neuritis, especially if there is a co-existing general nervous disorder, the oxygen bath is very useful. It is made by pregnating the water with oxygen. Into the water are also placed various chemicals. With all of these agents the hygiene of the patient must receive careful attention.

### Treatment of a Cold on the Chest

TAKE it in hand immediately. The very first symptom should be a call to arms. Every half-hour that the cold is allowed to proceed increases the difficulty of breaking it up. Do not put it off until you have filled certain engagements, but attend to it at once. Empty the bowels. This is always good treatment in any cold, and in almost any acute sickness.

Some recommend staying in bed from twenty-four to forty-eight hours. This may be good in some cases if the cold is due primarily to exposure, and the treatment is begun early enough. If it is due to sedentary habits, a vigorous run or walk in the cold, bracing air may be a proper procedure. This, of course, should not be preceded by hot treatment. The writer once caught a severe cold, because of being all day in a very much overheated house. Outside it was slushy. In leaving the office he had to wade, with thin shoes, in soft snow. With his feet as wet as if dipped in a pail of water, and himself "frozen to the marrow," as it seemed to him, he had to sit at a junction in an unheated room and wait half an hour for a car. The surprising thing to him was that instead of contracting pneumonia as he expected, he reached home with every trace of his cold gone—frozen out! He does not recommend the treatment to others.

On the whole, perhaps the best proced-

ure is, after a hot treatment, to remain in bed, in a moist, warm room, until the attack is over. For local treatment one may rub the chest with camphorated oil—olive oil in which camphor is dissolved. Fomentations should be applied to the chest, followed by a cold compress. A mustard plaster to the chest, as a counter-irritant, at the first will do much to allay the inflammation.

Onion is a good expectorant. The oil of onion is absorbed into the blood and excreted in the air passages, as anyone can testify who comes near one who has eaten onions. Sometimes the free eating of mild onions seems to act like magic in the breaking of an incipient cold. The oil of the onion may act not only as an expectorant, that is, to loosen the phlegm, but it may actually have a germicidal action. Garlic acts in the same way. Needless to say, the patient should be quarantined on account of his onion as well as on account of his cold.

Liquorice is another mild expectorant, and for this reason acts well in influencing the progress of a cough.

Turpentine, oil of tar, and various balsams inhaled in vapour from boiling water, or by means of an inhaler or atomizer, also act as expectorants, and in this way relieve irritation; for most of the irritation comes from the ineffectual dry coughing.

An atomizer with a solution containing tincture of bezoïn with perhaps some other ingredients, as oil of Scotch pine, pine tar, etc., may prove beneficial.

G. H. HEALD, M. D.

"TAKE heed and listen while I speak  
A solemn word to thee:  
Earth's fairest, yea, but swiftest gift  
Is opportunity.

"It far outstrips the fleetest bird  
That wings the furthest sky:—  
Lo! all the flowers to dust are turned  
If thou dost let it by."

# Abstracts

## How the Cigarette Does Its Work

FIRST, it irritates the delicate lining of mouth, throat, and lungs, makes them sore, and less inclined to do their work; at the same time it partially paralyzes the nerves that control the breathing, and the boy suffers from lack of air.

Second, the cigarette weakens the nerve that controls the heart, and makes it beat badly, too fast, too slow, stop, etc., and while working much harder than before, it really accomplishes less, and the boy's blood begins to be purple instead of cherry red. This means that he is getting too little oxygen, and he feels nervous and blue.

Third, the tobacco makes the stomach more active in preparing juices to digest food. As the boy smokes "as tinkers take ale," all the time if he can, the stomach, being overstimulated and overworked, and secreting digestive juices when they are not needed and can not be used, soon grows weak, and fails to produce enough for use when really needed, and the boy, digesting badly, begins to be half-starved, pale, and weak.

Fourth, the cigarette boy soon finds it difficult to sleep as much as he needs; and, fifth, he becomes disinclined to exert himself, and neglects proper exercise. Naturally, at this stage, since he gets too little air, he has a weak heart, loses sleep, and begins to stop growing as fast as he should.

This is enough, but there is more and worse to follow. The intellect of the boy now suffers. The cigarette fiend grows careless, dull, and irresponsible; he loses interest in honest sport and studies, and he thinks more and more about his cigarettes; he is determined to have them, and often, if there is no other way to get them, will resort to stealing.

Morals are injured. The record of fifteen boys who were sentenced in one lot of crimes, shows that ten of them had stolen to get cigarettes.—*Child-Welfare Magazine.*

## Changing Habits

A FEW years ago water-drinkers were looked on as eccentric, even in temperance circles, because, although they did not drink alcohol, they drank all sorts of temperance drinks; they did not seem to like to drink water; but nowadays most men in the middle of the day drink water and nothing else with their luncheon. In all clubs there has been the greatest complaint of the falling off in the receipts in regard to alcoholic drinks, due to this most excellent change of fashion; and I hope that the fashion is one which is going to stay. Water, which is the best and pleasantest of drinks, has now regained favor with the public—a change with which you will all be thoroughly well pleased. It was not so many years ago that almost everybody was drinking whisky and water, a most abominable drink; and it was quite the thing to see women drinking whisky and water with their meals, and to hear them say they were doing so by medical advice.

Another evidence of change in habits is that formerly everybody kept beer for his servants. Then a change was made by giving beer money instead. That is now a thing of the past, and we do not hear anything about beer or beer money.

During fifty years the hospital expenditures for wine, beer, and spirits has dropped to almost nothing.—*Professor Saundby, president of the British Medical Association, speech of the medical temperance breakfast, Birmingham England.*

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## THE COMMON TOWEL

THE health officers of the State of Connecticut U. S. A. are proceeding to enforce the provisions of the law against the use of common towels in hotels, which went into effect January 1.

## CANCER CURE CLAIMED

A German physician in Cologne has applied for the Italian award of \$20,000 offered for the discovery of a cure for cancer. He asserts that he has cured forty cases by means of a serum. We await developments with unfeigned skepticism.

## ANTITYPHOID VACCINATION

IN the town of Torrington, Conn., during a recent typhoid epidemic, 400 persons voluntarily submitted to antityphoid vaccination. Only one of the 400 afterward developed typhoid fever and in that case the disease ran a very mild course.

## NORMAL COURSES IN HYGIENE

IN Paris, normal courses in hygiene for teachers have recently been organized, which include general hygiene, hygiene of the young, first aid to the injured, and care of the sick. In connection with the instruction there is given practical clinical work at the infant consultation stations.

## CANCER RESEARCH

THE (British) Imperial Cancer Research Fund, after eight years' work, has published its fourth report, from which it appears probable that cancer is not a parasitic disease, and that nothing in the way of dietary, place of abode, or general habits of life can be fixed on as either likely to increase or diminish the tendency to the affection.

## COLD BATHS IN CHILDREN'S DISEASES

A Canadian physician, Dr. Newell, advocates the use of cold baths in the treatment of children's diseases. In convulsion he finds the cold baths much better than the hot bath, as the convulsions are always accompanied by fever. He also finds the cold bath an excellent preventive measure. While the body temperature is below 102°, he says there are no convulsions. Above 103°, no matter what illness, there is great danger of convulsions. In all conditions accompanied by high temperature and irritability of the nervous system, he puts the child into a bath of 75° to 80°, pours cool water on the head, and vigorously rubs the body, continuing the treatment until the rectal temperature reaches 100°, when the child is removed and wrapped up, with a hot-water bottle to the feet if they are cold. For thirty years Dr. Newell has successfully used this cold treatment with children.

## "TYPHOID MARY" SUES

THE servant girl who, because of being a typhoid "carrier," was shown to have innocently, or rather ignorantly and dirtily caused deaths in a number of families, and who has been detained for months by the health officers in order to prevent her infecting other families, has sued the city of New York for \$20,000 on the plea that the notoriety given her by the health board makes it impossible for her to secure a situation. Probably she would like to go back to the kitchen again and get enough of her typhoid discharges into the food to infect others.

## PATERNALISM IN GOVERNMENT

IN the principality of Reus (Germany) a special tax is levied on bachelors who have reached a certain age, unless they have relatives depending on them. We would suggest that the proceeds of this tax be given as an award to the families having the largest number of children.

## ASTOUNDING FECUNDITY

IT is said that a man and his wife in Boynton, Okla., are parents of eleven children born in three years. Triplets one year, triplets the next year, and five the year after. The oldest child is fourteen and then come twins five years old, then the eleven, as given above.

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