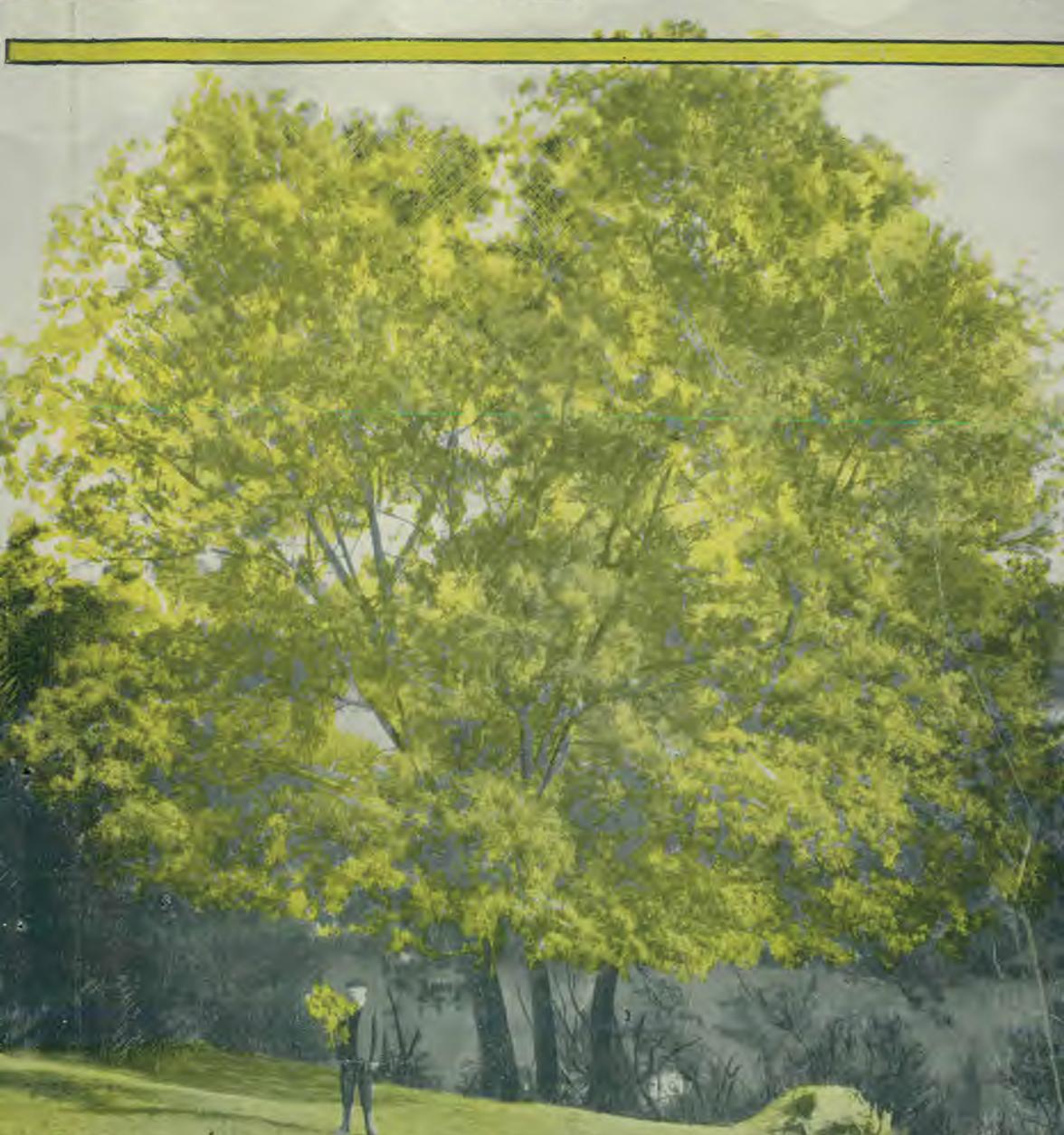


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THE TALK OF THE OFFICE



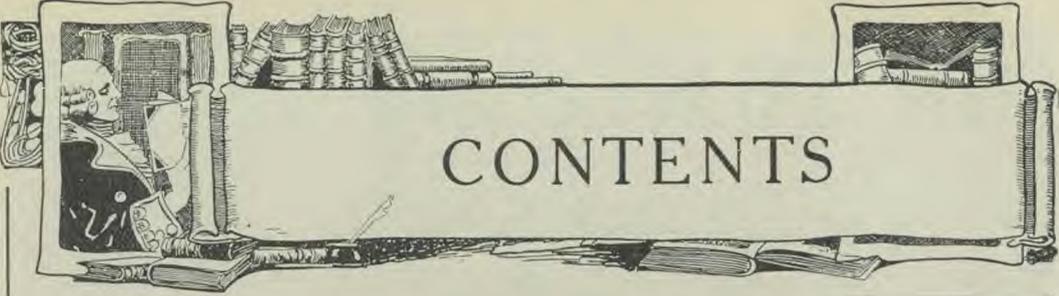
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This useful little pamphlet may be obtained from any of our agents or may be ordered direct from this office by sending two penny stamps.

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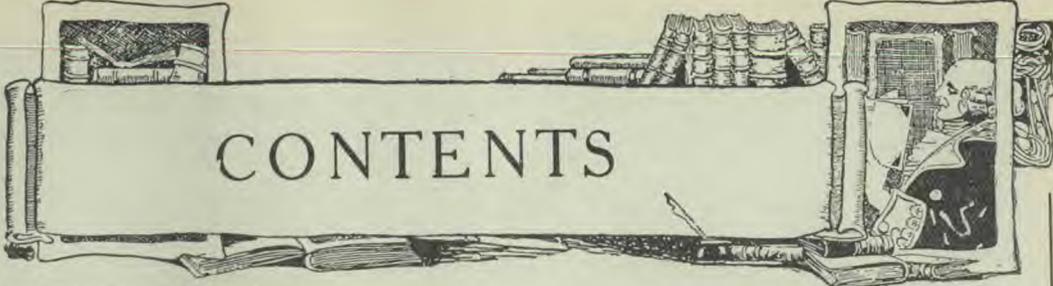
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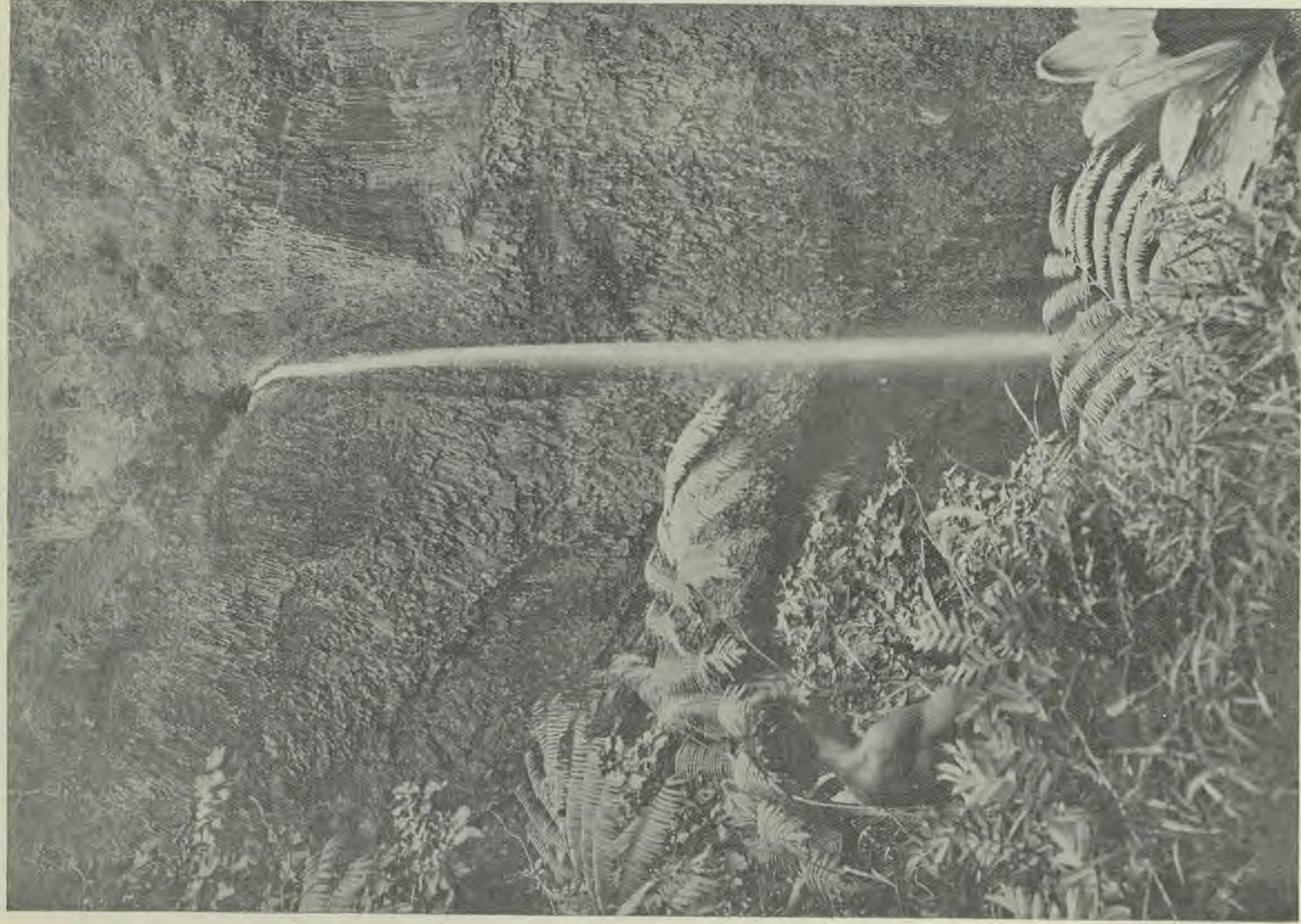
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Our cover design is from a photograph taken by Mr. N. J. Caire, of a silver wattle tree growing on the banks of the Yarra at Heidelberg, near Melbourne.



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A WATERFALL IN TAHITI



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Melbourne, Victoria, Australia

August-September, 1911

The Influence of Winter upon the Health and Character

OH, spring has come again!" exclaimed Gwendoline, as she stood gazing through the breakfast-room window, viewing with evident satisfaction the bursting buds of the trees in the garden on a bright September morning. "Summer will soon be here!"

"Yes, but after that it will be winter again," wailed Susie. "I just hate the thought of being compelled to endure all the rainy and gloomy days of winter, and, to tell you the truth, I wish there were no such unpleasant season."

"Tut, tut," said Aunt Muriel, who was sitting by the fireside and had overheard the conversation of Gwendoline and Susie. "Just come here, you two girls, and let me talk to you for a little while about the *benefits and blessings* of winter."

"Benefits and blessings of winter!" exclaimed Susie in utter astonishment, mingled, perhaps, with a little disgust.

"Yes, my dear," said Aunt Muriel, "we owe far more to winter than many people dream of; and it is possible that after

talking over the matter together you will see fit to change your mind and to accept with thankfulness the gloomy days of winter which you appear to detest."

With this, both girls settled themselves comfortably into easy chairs, and prepared for one of Aunt Muriel's interesting disquisitions, some of which, Gwendoline assured her companions, were worth printing in a book.

"Many years ago," began Aunt Muriel, "I felt just as you girls do about winter, and was always wishing that summer would continue throughout the year and that life might be spent continually amid the bright summer sunshine. But, one dull day, I was musing over the matter and wishing to myself that cold, rainy weather could be dispensed with, when a thought came into my mind that, perhaps, after all, the winter season might be a great blessing to humanity. It was with mingled feelings that I continued my meditations and, finally, I decided to investigate the question, feeling sure, however, that I should find nothing of value to the human family in the biting

winds and the gloomy, rainy days of winter. Nevertheless, I felt impelled to look into the matter, and I am very glad that I did so, for you will be surprised when I tell you that I discovered, much to my own amazement, that the human family owes some of its best characteristics to the winter season."

"Why, aunt!" ejaculated Susie, "you surely cannot be in earnest. Pray do tell us how you ever arrived at such a strange conclusion."

"If you will be patient," replied Aunt Muriel, "I will explain myself."

"First, my attention was called to some words which were uttered thousands of years ago by a young man named Elihu, who set before the patriarch Job and his three friends some wonderful ideas, the value of which it would be well if the world understood better to-day than I fear it does. These words are found in the thirty-seventh chapter of the Book of Job: let me read them to you:—

"At this also my heart trembleth,
And is moved out of its place.
Hearken ye unto the noise of His voice,
And the sound that goeth out of His mouth.
He sendeth it forth under the whole heaven,
And His lightning unto the ends of the earth.
After it a voice roareth;
He thundereth with the voice of His majesty;
And He stayeth them not when His voice is heard.
God thundereth marvellously with His voice;
Great things doeth He, which we cannot comprehend.
For He saith to the snow, Fall thou on the earth:
Likewise to the shower of rain,
And to the showers of His mighty rain.
He sealeth up the hand of every man;
That all men whom He hath made may know it.
Then the beasts go into coverts,
And remain in their dens.
Out of the chamber of the south cometh the storm;
And cold out of the north.
By the breath of God ice is given;
And the breadth of the waters is congealed.
Yea, He ladeth the thick cloud with moisture;
He spreadeth abroad the cloud of His lightning:
And it is turned round about by His guidance,
That they may do whatsoever He commandeth them
Upon the face of the habitable world:
Whether it be for correction, or for His land,
Or for mercy, that He cause it to come.

"Now, girls," said Aunt Muriel, "you must have perceived that the writer of

this portion of what is generally admitted to be the oldest piece of poetry in existence, is alluding to the winter season, when the waters are frozen and the snow is on the ground, and when there are mighty showers of rain—that period of the year when the beasts retire into their dens and when the hand of man is sealed up. Did you notice as I was reading these beautiful words of Elihu that he mentions a reason why the hand of man is *sealed up*?"

"Yes, indeed," said Gwendoline, "I noted that point particularly, and it has already given me a new idea of winter. Now I can see what a blessing to humanity winter is, and hope that I shall never be found murmuring about that which a beneficent Creator has provided in order to enable men to increase their knowledge of His wonderful works. Truly it never occurred to me before, that as winter restricted man's outdoor activity greater opportunity was given to him to increase his knowledge. I will endeavour always to remember those beautiful words—

"He sealeth up the hand of every man;
That all men whom He hath made may know it."

"Well, I am glad," said Aunt Muriel, "that we have had this little talk together, and trust that both of you girls will ever remember what we have learned about the value of winter from the words of Elihu uttered scores of centuries ago.

"But if you will be patient I will tell you something more about what I discovered concerning the merits of winter in the development of human character, for that is really what I intended to talk to you about.

"You will remember, perhaps, that I remarked a few minutes ago, the human family owed some of its best characteristics to the winter season. Well, if you will follow me closely I will endeavour to make my meaning plain to you. First, permit me to say that one of the most valuable traits of character which men possess is *foresight*. Now, of all the seasons in the year winter is perhaps the one which best develops in man this valuable



PREPARING FUEL FOR WINTER

characteristic. Think for a moment of the predicament of a family living in some obscure locality where the roads are almost impassable in winter, if they had failed to provide themselves during the summer with a good supply of household necessities before the winter sets in. It is very essential that such a family should provide themselves with an ample supply of fuel and sufficient warm clothing and strong boots in order that their health may be conserved during the cold weather. You will therefore perceive that almost imperceptibly the annual recurrence of winter tends to develop within us *thrift, prudence, sagacity, and foresight*. Possibly this may account for the well-known fact that those nations whose territories are situated where the winters are long and severe show a greater development of these traits than is found amongst nations whose territories are situated where cold winters are unknown. One authority on climatic influence, writing many years ago

on Canada, says that 'Canada occupies one of the best positions in the world for rearing men and women. It lies in the latitude where man attains the greatest energy of body and mind, and from which have hitherto issued the conquering races.' Strange as it may appear to us in sunny Australia, Great Britain is also said to be most favoured climatically, for experts declare that the Motherland enjoys 'one of the healthiest climates in the world,' although, doubtless, most Australians would shudder at the thought of an English winter.

"From personal observation as well as from what I have read upon this question I feel confident that there are but few persons who really know what is a *good climate*. Generally speaking, men and women are prone to think that which is good for them is that which pleases them most and causes them the least inconvenience. But that is not so. Things are not always what they seem to be. The



HARVESTING CORN

facts of history should be sufficient to convince any thinking person that a little cold weather does not injure the inhabitants of any country. Therefore, instead of grumbling at the genial winters which we experience in Australia, and wishing that we had no rainy, cold weather, we should welcome a little winter weather and regard it as a very necessary tonic. Undoubtedly young Australians are suffering from a lack of that stimulus which is the

a full exposure to the south, it is protected by a barrier of mountains on the north. It is situated in Canton Grisons, and borders on Italy.

"When the writer came to St. Moritz, some thirty years ago, with the intention of establishing a winter resort here, he was warned that, whatever benefits adult persons might expect to gain from an altitude of 6,000 feet, children would never be able to tolerate it; indeed, during the first ten years of our career the medical profession and the public gave us the cold shoulder. Theorists maintained that the 'roof of Europe' was too cold for children, their circulations could not endure it, and it would be quite impossible for them to enjoy an outdoor life in an atmosphere where the temperature might drop to 0 deg. F. in the



GENERAL VIEW OF ST. MORITZ IN WINTER

natural concomitant of long, cold winters, and, apparently, the less cold weather they have the less they want.

"The other day I was reading a new monthly magazine published in London entitled *The Child*, in which there is a most interesting article by Dr. J. Frank Holland, British Consul for Switzerland, on 'Health and Holiday Resorts for Children.' I would like to read you a few lines from this most interesting article:—

"St. Moritz (6,200 feet) is the highest village in the Engadine, or the Valley of the Inn. This valley runs from north-east to south-west, and while it has

twenty-four hours. It is needless in these days to remark what a revolution has taken place in medical views with regard to the restorative powers of Alpine air for delicate children.

"But, 'Why are children sent to St. Moritz?' will be the first question put to the physician by those who are unacquainted with what is known as the 'Alpine cure.' The answer is a short one: 'To make them stronger.' Without entering into physiological subtleties let us consider what are the chief characteristics of mountain climates that are likely to prove beneficial to weak, ill-developed, or hereditarily delicate children. We shall deal with the winter season in the first instance, although, of course, the main factors hold good also in summer.

"At 6,000 feet above sea-level, and especially when the winter snow has become deposited, the air is absolutely pure (aseptic), being free from all organic and inorganic substances. It is rarefied, cold, and stimulating, and its dryness is perhaps one of the

chief qualities that determines the physician in sending a delicate child to the Engadine.

Moreover, the volume of light is intensified, and so is the force of the sun's rays. These physical conditions lead us to the consideration of how they affect the organism of the delicate child. The cold, bracing mountain air certainly stimulates the appetite and digestion, and this is followed by improved nutrition, muscular tone, and nerve energy. The heart's action is also stimulated, and the child's circulation is thereby materially benefited. Respiratory activity is greatly augmented in dwellers in the mountains, and this is almost invariably followed by expansion of the chest. Careful experiments by competent observers have also demonstrated a marked improvement in the state of the blood in anæmic children.

Children who are suffering from a general delicacy, but are free from organic disease, almost invariably do well in the high Alps. During convalescence, after pneumonia and bronchitis, high, dry air is admittedly the most satisfactory climatic aid to permanent recovery. In a great measure this is due, no doubt, to the expansion of the chest that takes place in rarefied air. Of all maladies perhaps asthma derives the greatest and the most immediate benefit from an Alpine environment. Children with ill-developed, narrow chests, or who are 'pigeon-breasted,' soon develop a normal thorax, and those who are hereditarily predisposed to tuberculous diseases, should, at as early an age as possible, seek a residence in the mountains.

The dyspeptic and the nervous child will also soon throw off his delicacy, owing to the bracing air and constant outdoor life. With increased muscular and nervous vigour his powers for intellectual work will become proportionately augmented.

From this you will see that experience is teaching us that some of our ideas of the unhealthfulness of cold winters are most erroneous.

But I have digressed a little from the subject which I desire most particularly to impress upon your minds, that is, the influence of winter upon the character. Without the prospect of winter facing us, I would ask you, What incentive is there in summer when fruit is plentiful to lay in a stock of canned fruit and preserves? But past experiences show us the imperative necessity of making ample provision for a supply of fruits and other edibles for winter use when in the natural order of events these things are unprocurable. Happy indeed is the housewife who, during the summer and autumn, has stored the pantry or cellar with a good stock of jams, jellies, preserves, canned fruits, and other needful things which will enable her to face the winter with the satisfaction that her family will not suffer for lack of variety in their meals.

"Now, can you not see that without the winter season we should have little or no incentive to exert ourselves during the summer to procure a supply of winter necessities? Were the fruit to grow on the trees twelve months in the year, and if there were no cold, wet weather demanding that a good stock of dry wood be provided for the comfort of the family, and were it possible for men always to cut hay whenever they needed feed for their horses, we should lack the very incentives which are required to compel us to exercise prudence and foresight.

Possibly your minds have already begun to think of the difference in the characteristics which exists between the inhabitants of tropical countries and those who live in the temperate regions. Take the Polynesians who, owing to their genial climate which they have enjoyed for untold centuries, have been able to procure practically all that they require at almost any time of the year. Having no winter, as we know it, to face, they have become indolent and careless, far different from the inhabitants of colder regions who have been compelled to learn by repeated experiences the truthfulness of the old proverb, "He that gathereth in summer is a wise son; but he that sleepeth in harvest is a son that causeth shame."

Moreover, does not all history teach us that the nations which have gone into oblivion have been overthrown by nations inhabiting colder regions whose virility has not become impoverished or effeminate by a too luxurious or easy life?

No! the human family owes more to winter than it ever dreams of. A perpetual summer may be very congenial to our natural love of ease and pleasantness, but under continuous pleasant conditions of climate we should fail, as other nations have failed, to develop some of the finest traits of manhood.

Then, again, there are some men whose natural avarice would lead to their physical and moral ruin were it not for the annual return of winter which compulsorily prevents them from carrying on some of their enterprises. Yes, I am

satisfied that to winter the race owes much more than its ease and pleasure-loving propensities will permit it to acknowledge.

"Now, Gwendoline, if you will pass me that book from the rack entitled,



A STAPLE FOOD WHICH GROWS WILD IN THE TROPICS

'First Conditions of Human Prosperity,' I will read to you, if I can find them again, a few lines which will supplement what I have been trying to explain to you."

Having found the book, Gwendoline passed it over to her aunt, who scanned the pages rapidly in the hope of finding the passage she alluded to.

"Ah, here it is," she said, as her eye caught the line she was looking for. "Now listen to the conclusion the writer of this excellent little book came to after making a most exhaustive study of the subject:—

"Climate is more important than soil, for while, as Buckle points out, [extreme] cold depresses and cripples, and heat incapacitates for hard labour or produces a too large abundance of fruit with little aid, a temperate climate braces and stimulates the physical nature and leads to a highly productive development of energy. Nothing raises man more than a continual struggle with the elements, in which patience, skill, and industry are rewarded, and in which negligence cannot survive; where the conditions are not hopelessly hard, but responsively kind to the faith of perseverance. Buckle and others attribute too much distress to poverty of soil, and too little influence to the character of the people and its laws. The poorest soils in a temperate climate often produce a hardy, happy population, with a love of independence and some elements of progress. The civilisations



WHERE COCOANUTS THRIVE THERE IS LITTLE INCENTIVE FOR MEN TO BE THRIFTY

of Mexico and Peru were not well founded, the fine climate and very high productiveness of the staple fruits, maize and bananas, led to great wealth, but allowed the people to grow up without sufficient energy and spirit to withstand a tyrannical system of oppression by rich oligarchies. This has been the common fate of civilised States within the tropics, and wherever the conditions of life have been easy and luxurious. *Human nature seems everywhere*

to lack moral strength to survive in health when comfort and luxury become easily attained and common.

"Although much more could be said upon the question," remarked Aunt Muriel, "it will not be necessary, perhaps, for me to say any more this morning except to impress upon you briefly a few concluding thoughts. Winter tones up the system, and invigorates and energises man, begetting in him a disposition to be thrifty and prudent and sagacious, fitting him not only to fight successfully the battles of life, but impelling him to be master of his circumstances. I trust, therefore, Susie, that you will never let me hear you complaining again about the gloomy, rainy days of winter."

A. W. A.

Etiology

THE microscope has revealed much concerning the causation of many diseases; tuberculosis, the eruptive fevers, diphtheria, pneumonia, typhoid fever and many other ailments are now known to originate from the development of specific germs. These germs belong to the vegetable kingdom, and like all other vegetable organisms require suitable environment before they will develop. Seed will not germinate in dry, barren soil. Decomposing organic matter, together with a certain amount of heat and moisture, is absolutely necessary for its development; the young plant will perish in the absence of its food—decaying organic matter. Disease-producing germs are not different from other vegetable organisms; they cannot live in a healthy body, in a being that is free from dying tissues. Germs in a healthy body must perish for two reasons: first, because it contains nothing on which they can develop, and, secondly, the healthy secretions and the blood actually destroy them.

Medical science has now fully demonstrated the fact that consumption is not directly transmitted from the parent to the offspring, and that the children of tubercular parents, under favourable surroundings may entirely escape the

disease. Children of tubercular parents have, however, a decided predisposition to the disease. The blood contains certain protoplasmic bodies, opsonins, which are directly antagonistic to the bacillus tuberculosis, but in the predisposed the opsonins are lacking in quantity and power, and the system will not produce them in sufficient quantity except under the most favourable conditions. Heredity as a single cause undoubtedly is the strongest of all predisposing causes of disease. A child born with a weak constitution will need to live most carefully in order to maintain good health, whereas the child who is born of healthy parents and under favourable environments will maintain a strong constitution throughout life even under adverse circumstances. Disregard of the laws of health brings disease and death to the man of inherited feeble constitution; but the individual who possesses a strong constitution sometimes lives to a good old age notwithstanding the fact that he may have lived in some respects in opposition to nature's laws. He, however, who disregards the laws of health does not make the most of life; he lives on a lower plane through yielding to perverted appetite and unhealthful habits; his usefulness has been considerably lessened; although there may be apparent health of body his mental and spiritual faculties have been benumbed, and it is a well-observed fact that he cannot transmit to his children the constitution which he himself inherited.

A healthy constitution, free from predisposition to disease, is truly a great blessing, but it may be lost. Although heredity as a single cause is perhaps the strongest of all predisposing causes of disease, nevertheless predisposition to disease is mostly acquired and is brought about by a combination of causes; every infringement of natural law lowers the vitality and will increase the liability to almost every disease which attacks the human being. Undoubtedly inherited predisposition to disease can be largely overcome by right living.

Enough has been said to show that disease is not the result of one cause alone; in every case there is not only an active but also a predisposing cause. In germinal diseases the active cause can produce only the one specific disease, just as the seed will develop only into a plant of its own kind. In non-germinal diseases, however, the one active cause may produce quite a variety of complaints in accord with the predisposition of the individual. Exposure to cold for instance in one person will produce bronchitis, in another pneumonia, nephritis, gastritis, rheumatism or gout, while others will escape with merely temporary discomfort. The disease developed will depend on the particular "weakness," the predisposition of the patient, but the really healthy man will escape altogether. It is an important fact that predisposition is often not recognised until the active cause operates. We recognise that the soil is fertile when the seed develops rapidly into its plant, and similarly the development of the disease proves the pre-existence of the predisposition. The predisposition is produced by the breaking of natural law, but the organs and tissues of the body are so marvellously fortified that the evil effects are, to a large extent, overcome. It must, however, be recognised that the system does not altogether escape; more work is thrown on the organs that eliminate the waste and poisonous products from the body; the machinery of the body is working at a higher tension and this means less reserve force; consequently when some active cause supervenes, nature is not equal to the task imposed on her, and a breakdown is the result.

It is by no means always easy to classify the causes of disease under two headings, predisposing and active. A child for instance may have the bacilli of diphtheria actually present about the throat without any untoward symptoms whatever, but the exposure of the child to foul air, cold, or other devitalising agencies often precipitates the disease. In this case what would generally be

looked upon as the active cause becomes the predisposing cause. And further, the same cause may first be active, then predisposing, and finally again become active. Tobacco, for instance, will, in the uninitiated, produce headache, nausea, irregular action of the heart, etc., but with further use these symptoms subside, for the reserve forces of nature keep them in check. Nevertheless the effects of the tobacco still exist although the user does not recognise them, and they constitute an increased liability to ill health in many forms. Long continuance of the habit, or extra indulgence, however, may revive the smouldering fire, and again, stomach, heart, or brain symptoms may develop or actual blindness may be the result. Thus the predisposing cause may become an active cause.

Alcohol is undoubtedly a predisposing cause; it weakens all the forces of nature, and renders the partaker more liable to almost every disease: but it is also a very active cause of disease; for it increases the connective tissue binding the cell elements of the organs and nerve tissues together and in this way produces hardening of the liver (cirrhosis), of the kidney (nephritis), of the nerve tissue (as in many obscure spinal diseases); it also causes fatty degeneration of all the organs of the body. Every unnatural habit clogs the system, weakens nature's forces, and consequently predisposes to disease. "The commandment," says Paul, "was ordained to life;" and the laws of our beings are the commands of the Creator and the less they are interfered with the better. Constant stimulation with artificial stimulants such as opium, cocaine, alcohol, tea and coffee are undoubtedly agencies which interfere with nature, and thus they predispose to disease; and not only so, but are often the direct cause of disease. Dyspepsia in its various forms is frequently the direct result of these unhealthful stimulants. The waste products of the body, those compounds which result from the oxidation of the food stored up in the tissues, act as powerful direct causes of disease when

not eliminated by the excretory organs, producing rheumatism, gout and allied diseases. Alcohol, tobacco, tea and coffee will interfere with the function of the organs of elimination and thus predispose to these diseases.

All flesh foods contain waste products and, when taken as food, burden the system with an increased amount of poisonous compounds. All apparently goes well as long as the excretory organs will rise to the occasion. This is where the trouble arises; nature does rise to the occasion, the organs are overworked without the knowledge of the partaker, and he remains "seemingly well." An increase of work often induces the manufacturer to run his machinery at high pressure, but he knows that this means danger. As long as there is no apparent hitch in the work he is often quite satisfied. So it is with many a man who overworks his physical system; he is "seemingly well," but he is exposing his life and health to danger all the time. The trouble with predisposing causes of disease is that they do not manifest themselves until a crisis occurs, until some other factor is brought into play. The postponement of the results of living contrary to natural law makes the individual careless and gives room for all kinds of excuses for hurtful habits. Nature in the earlier part of our life may work at high tension, but if that is so we most assuredly will suffer in the latter half of our existence. How true is the declaration of the Wise Man, "Because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil."

W. H. J.

Sunlight in Tuberculosis

HELIO THERAPY, or the use of sunlight as a remedy, has proven very useful in all forms of tuberculosis. In Switzerland it is the practice to send all children suffering from tuberculosis to the shores of the Mediterranean. These children are sent to a protected beach in October, and they remain at the seaside until June. Thus during a period of about 240 days, 190 of which are favoured with sunshine, these children derive the benefit to be obtained from pure air, sunlight, and sea-bathing. At the time of arrival the sea is warm, the temperature of the water being about 64 deg. F. As winter comes on, the temperature falls to 46 deg. F. Nevertheless, the children take their daily dip, the sea-bath being always short, lasting from one to three minutes at the most. This dip in the cold salt water is followed by an intense reaction of the skin, which gradually improves circulation. The greater part of the day is devoted to exposure of the tuberculous parts to the rays of the sun. Marked benefit results. Weak, pale, emaciated children undergo what has been described as "a veritable resurrection." Strength, appetite, colour, and spirits return. There is an average gain in weight of about ten pounds. Tuberculous glands which are discharging, quickly dry up and heal. Old sinuses rapidly close, and tuberculous bones and joints are greatly improved and frequently cured. Thus of sixty-three children suffering from tuberculosis of the spine, twenty-seven were cured and twenty-six improved. And of ninety-four children suffering from hip-joint disease, thirty-eight were cured and fifty improved. Cases of abdominal tuberculosis were also benefited; and of eleven cases of tuberculosis of the skin which were treated, eight were cured and the other three improved. Of a total number of 888 cases of tuberculosis which were treated by exposure to the sun's rays, favourable results were obtained in 93 per cent., and complete cures in 52 per cent. Surely such favourable results

THE purification of the water-supply of Hamburg, Germany, intended to end epidemics of typhoid from that source, has unexpectedly resulted in reducing the rate of infant mortality from 405 each 1,000 births to 240 per 1,000 births.

justify the more general employment of this method, which has everything to recommend it, and is equally available to rich and poor.

F. C. R.

Relief for Burns

THE physician is often called to many cases, where, had there been applied some first aid, the patient might have been saved much suffering. Especially is this true of burning accidents, which are of such frequent occurrence. One morning, just before school time, a hurried call was sent to me, "Come at once! Charley has burned himself." The previous afternoon the boy had seen his mother making tea in the front room for some visitors, using an alcoholic lamp for heating the water. Charley, having rather an investigative turn of mind, thought he would fill the lamp and light it. In the filling, the alcohol ran over on to the tablecloth, and when the match was applied, the whole blazed up and the little fellow's clothing caught on fire. Running across the room, he fanned the fire to greater intensity, but soon his cries brought help. An overcoat from the hallway was quickly wrapped around the boy, and the fire extinguished. Nothing more was done, however, until the doctor arrived.

In severe burns extending over large areas, it is always advisable to obtain medical aid, for there is the liability of shock and prostration. The pain attending a burn is so intense that care should be taken to have all exposed areas covered. Almost every household has a small supply of olive oil, sweet oil, vaseline or some mild ointment. Charley's exposed areas could have been covered with any of these.

Treatment

Always take the patient to some place of safety. Do not pull away the clothing, but take the scissors and cut away gently. Sometimes the clothes may stick: this difficulty can be overcome by saturating with oil or water. Warm, moist cloths

are always well received, especially if the cloths are moistened with a warm solution of baking-soda (bi-carbonate of soda). This solution may be made by using a teaspoonful of baking-soda to a pint of boiling water, and stirring well.

Severe cases with shock can be treated by lowering the patient on a sheet into a bath-tub full of moderately warm water. This will relieve the pain and shock. Patients in large hospitals are even permitted to stay in the water for days, the water always being kept at an even temperature a little warmer than the body.

A very common treatment is to saturate lint with one of the oils mentioned, or preferably with carron oil (equal parts linseed oil and lime water). If no oils are in the house, dust on the burns, starch, flour or toilet powder. Cover with a layer of lint, and over this a layer of absorbent cotton.

Another lotion giving good results is one composed of picric acid, forty-five grains to one pint of water, applied on lint. Do not change the dressings more frequently than is absolutely necessary.

To wash the wound before placing on a new dressing, a boracic lotion, or a 1-to-4,000 perchloride of mercury solution, may be used.

During the period of healing, careful attention should be given to prevent contraction from taking place too much. Those cases in which the burns have covered large areas and are deep into the tissues, complications are possible, such as bronchitis, pleurisy, inflammation of the lungs, or stomach and bowels.

Always see that the patient obtains enough nourishment. Sleep is very beneficial, and should never be interrupted.

P. M. K.

"WHEN you meet a person that does not look well, call his attention to the sunny side of things, or to something that will give him a new interest and new life. You will thereby nip in the bud many a threatening evil and carry healing with you wherever you go."

What Mouth-Breathing Means

MOUTH-BREATHING during childhood is generally an indication of adenoids—an enlargement of the pharyngeal or post-nasal tonsil together with soft, spongy growths or vegetations which hang from the roof of the pharynx. The post-nasal tonsil is a useful structure, acting as a germ trap when healthy. But when enlarged and diseased it becomes a menace to health and even to life and is the source of many ailments, not only during childhood, but, through its far-reaching ill-effects, in later life.

Causes and Prevention

Adenoids are most common and injurious during childhood, say between the ages of two and twelve. They are occasionally seen in older persons, and are not uncommon during infancy. Bad hygienic conditions and general bad management of infants and children are the fruitful sources of adenoids. The average child is not fed, clothed, and reared in a manner likely to produce a healthy animal, and the child that is not primarily a healthy animal cannot be expected to become a perfectly sound and healthy man or woman. The particular causes of adenoids are repeated chills due to cold rooms and floors, bare extremities, wet napkins, clothing unsuited to weather conditions, improperly-given baths, etc. In public places one often sees children with cold, bare legs, blue lips, open mouths, and drivelling noses.

Such children are growing crops of adenoids and tonsils for the surgeon. Errors in feeding also cause adenoids, particularly the pernicious practice of giving the "dear children" biscuits, etc., between meals. Too frequent feeding, over-feeding, an impoverished diet, and the giving of artificial sweets, pastries, and other indigestible and unwholesome foods, are other common dietetic errors which prepare the way for the develop-

ment of adenoids. When children are as sensibly and scientifically reared and fed as prize puppies, we shall hear far less of adenoids.

Symptoms

A marked symptom of adenoid growths in very young infants is "snuffling" or running from the nose. Another symptom noticed by the mother is difficulty in taking the breast or the bottle. A child that breathes through its nose can suck and breathe at the same time, but when nasal obstruction is present must frequently cease sucking to take breath through the mouth. Such a child sleeps with the mouth open, and if the lips are held together becomes restless and awakes because of inability to get sufficient air through the nostrils.

In older children, more or less running from the nose is also present, and the symptoms of nasal obstruction are quite pronounced. The child constantly keeps the mouth open, snores, and is restless when asleep; is often somewhat deaf, and speaks hoarsely or with a nasal twang. If permitted to remain for years, adenoids deform the face, mouth, and chest, blunt the mind, and dwarf the body. The facial appearance is quite characteristic. The child has a dull, stupid look. The bridge of the nose is broadened by adenoids, while the nostrils are small, and the tip of the nose has a pinched appearance.

Treatment

The nose is too important an organ to be permitted to remain stopped and useless a single day longer than circumstances compel. In suspected cases the child should be taken at once to a physician, and if he agrees that the trouble is adenoids, and advises their removal, this should be done. Chloroform is usually given, the little patient having been prepared for this by a warm

soap bath, a dose of castor oil, and an enema.

After the operation the child is best kept in bed for a few days. As the effect of the anæsthetic passes off, sipping very hot normal salt solution will relieve the pain and also assist in bringing up any mucus and blood which may have been swallowed. A mouth-wash of hazeline or Pond's extract, diluted with an equal volume of boiled water, also relieves the pain and keeps the throat clean. The nose should be thoroughly cleansed at least once daily with warm normal salt solution (one teaspoonful of salt to one pint of boiled water). In young children this is best applied with an atomiser; older children will draw the water up into the nose and let it run out through the mouth.

Great care should be taken for some weeks after adenoids and tonsils have been removed to keep the child from catching cold or getting chilled.

As mouth-breathing has become a confirmed habit, the child must be taught to breathe through the nose. For a day or two after the operation the air-passages may be partially obstructed by slight swelling of the injured mucous membrane, though it is really surprising how freely and how well nasal breathing may be

done immediately the operation is finished. The nose is washed out by the surgeon before the child leaves the table, and as consciousness returns the little patient is encouraged to "blow the water all out." This occasional blowing of the nose expels mucus and blood, and as a rule the child will breathe nicely through the nostrils from the first. Of course, encouragement and frequent reminding is required with most children, as mouth-breathing has become a confirmed habit. "Breathe deeply through the nose so that the old adenoids won't come back," is usually an effective suggestion.

A few days after operation—even before the patient is out of bed—systematic breathing-exercises should be begun. These will expand and strengthen the dwarfed lungs, and correct the deformities of the nose, mouth, and chest, which always exist in varying degrees where adenoids have been present for any length of time. All braces, bands, tight and heavy garments which drag the chest and shoulders down, should be discarded. Corrective clothing should be substituted, and the child encouraged to maintain correct positions and gain strength through useful exercise. Singing, reciting, and reading aloud promote recovery.

F. C. R.



THE SNOWS SEEN FROM DARJEELING

Erysipelas—A New Remedy

THIS very serious disease is known also as Saint Anthony's fire.

No period in life, from infancy to old age, is exempt from its attacks. In the case of the new-born the disease is apt to prove fatal. The outlook is also very grave for alcoholic subjects, the very aged, the debilitated, and for those suffering from Bright's disease.

An Old Disease

Erysipelas appears to have been known to the ancients, but reliable accounts are only of comparatively recent date. In the year 1750 there were severe epidemics of erysipelas in France. In 1800 Great Britain suffered from a severe visitation of the disease, and an epidemic of a most violent nature was experienced in both Europe and America in 1842-3.

There have been no records of any alarming outbreaks since. This is probably due to the improved sanitary conditions that prevail to-day in our hospitals and public institutions, and throughout the cities generally of civilised countries.

The Streptococcus Erysipelatis

The organism which is credited with propagating the disease is known by the name of the streptococcus erysipelatis. These disease germs cannot be seen by the naked eye, being only discerned under a powerful microscope, where they appear like little beads at an equal distance apart, and as it were strung on an invisible serpentine hair. If taken from a human being and injected into an animal, these disease germs will produce in it the same disease.

Two Forms of the Disease

There are two forms of the disease, the milder one, cutaneous erysipelas, confining its attack to the surface of the skin; and phlegmonous erysipelas, the more severe form, which burrows into the tissues beneath.

Symptoms of Cutaneous Erysipelas

This is the name applied where the skin only is involved. The bright scarlet

colour which it assumes will disappear for a moment on making pressure with the finger and then releasing it. Where the vitality is low the colour may be yellowish. There will be swelling or puffiness, and the margin of the affected part will be clearly defined by a line of brighter red.

It is at this margin we are told that there is in progress what appears to be a war to the death between the faithful sentinels in the blood current and the disease germs of erysipelas. These sentinels are always on the alert for invaders, and as soon as their presence is discovered in the form of the deadly microbes the combat does not end until the enemy is assimilated by the body of the sentinel, and the sentinel falls a victim in the discharge of its duty to preserve the life of the human subject with which it is associated. The bodies of myriads of vanquished sentinels and their captives take the form of pus. Wounds and abscesses where pus is found are battlefields.

There will be pain of a smarting, stinging, or burning character at the inflamed part. The attack usually begins with shivering, pains in the head and back, and vomiting. The fever that follows this may sometimes run very high, with a rapidly beating pulse. There will not be any desire for food. The urine will be scanty and less frequent, and in pronounced cases the patient will probably be delirious and the eyes will have a fixed stare. With very weak patients there may be looseness of the bowels or a profuse perspiration.

When this cutaneous form has run its course there will be peeling of the skin and loss of hair from the head if the scalp has been involved. In all probability, however, the hair will grow again as thickly as before.

Phlegmonous Erysipelas

This is the name given when the disease burrows beneath the skin into the deeper tissues. In this event the colour is a deeper red, and may be of a purple tinge. The part involved may be hard and tense to the touch and more swollen

than in the cutaneous form, or the flesh may have a doughy feeling to the fingers, and on pressure being made little depressions will be left for a moment after the fingers are withdrawn.

Points of Attack

The navel of the new-born child may become infected with the disease, when it is very apt to spread rapidly over the entire body and prove fatal. In older children and adults it may follow irritations and abrasions of the skin, and wounds, or it may be produced by contagion. It also frequently appears after vaccination, even when the utmost carefulness has been observed.

A Word of Counsel

In the treatment of erysipelas the very best medical assistance that can be obtained should be secured at once. If it is a suspicious case, affecting the skin only, that presents itself, the well-trained physician will decide the point and save doubt and anxiety and worry, and then be in readiness to direct intelligently in its management should the case require it. Should it prove to be the phlegmonous form of erysipelas, affecting the deeper tissues, which is to be dreaded far more than the cutaneous variety already mentioned, the medical practitioner may, by prompt and skilful effort, save a limb or a life that under other circumstances might be sacrificed.

Nursing

If the patient is an infant or young child the nurse must display firmness combined with kindness. It may not always be in the child's best interest for its own mother to nurse it through an attack. The necessary procedures at stated intervals are likely to be set aside in deference to the wishes or determined opposition of a petulant or high-spirited child, even when the treatment is not accompanied with much distress or inconvenience. The child, in all probability, will very soon be won over by the kindness of the new nurse, especially as it

learns to associate the relief experienced at times with the measures employed for its restoration. Should the attack be a severe one this precaution would not be necessary, as the child might be most of the time in an unconscious condition, without the desire or ability to offer resistance.

A New Remedy for Erysipelas

Make charcoal, preferably of deal wood burnt in a clean grate or fireplace. Pulverised fine and sift it through mosquito netting. Put in a basin, add cold boiled water, and stir into a smooth paste.

In grinding down the large lumps of charcoal a meat-mincer will render good service. But the fine grains of charcoal as they leave the mincer must be beaten into powder afterwards. A strong utensil, like an iron camp-oven, would suit the purpose exactly after being thoroughly boiled out. The meat-mincer also would have to be thoroughly cleansed by boiling to free it of all odour and remains of meat.

Spread the paste, at least a quarter of an inch thick, over the affected part. Should this be a limb, then after smearing thickly dip in cold boiled water a bandage four inches wide and two yards long which has been rolled up in readiness, and bandage loosely.

The limb or other affected part must not be covered with bedding, nor allowed to rest on the bed, nor otherwise to become over-heated. A limb may rest on a rubber bottle, or flat glass-bottles may be used for the purpose. They should be filled with cold water, and emptied and refilled as often as they become warm. Or if the foot is not affected the limb may be bent at the knee, and in this way be kept from being over-heated, the patient lying on his back.

The bandages must be kept wet, and at least as often as every six hours the affected part should be sprayed with boiled tepid water. A good spray can be obtained by removing the nozzle from a douche-can tube and then pinching the end of the rubber tubing so as to allow

only a very small jet of water to run. If the bottom of the can is supported about two or three feet above the level of the patient, this will give sufficient force to clear the charcoal from the skin, instead of washing it away with a sponge or cloth which might be painful. Sometimes large blisters will form on the inflamed limb, which will have the appearance of a bad burn or scald. The blisters must be lanced. The part should be treated again with a coating of the fresh charcoal and loosely bandaged as before.

Should swelling with threatened abscesses appear anywhere, poultices made of one part linseed to two parts powdered charcoal must be applied.

The writer regards the simple and inexpensive charcoal treatment outlined above for arresting the spread and subduing the distressing inflammation of erysipelas as the most satisfactory plan he has ever adopted, or known to be recommended.

When the disease occurs in children it is often accompanied with convulsions. These should be met by the same treatment as if occurring in any other disease: namely, attention to the stomach and bowels, and if necessary the use of the hot tub-bath.

While the fever is high, and for flatulence, give a copious enema of tepid water daily. This will also help very much to supply the needs of the system for fluid. Should there be a looseness of the bowels the enema would be the more necessary to rid the intestines of disease germs which nature is endeavouring to do by means of the diarrhœa.

A rubber bag for hot or cold water, a bed-pan, and a douche-can should be in every home in readiness to meet an emergency of this kind that might arise without warning.

Diet

The diet should be light. The patient must not be urged to eat until the sense of hunger returns, which is not likely to be the case while a high fever prevails, but abundance of water and fruit drinks should be supplied.

Disinfectants

A bowl of disinfectant should be placed on the washstand—lysol is good; and every time the patient is handled the attendant should thoroughly disinfect her hands at least, to prevent carrying the disease to other parts of the body of the sufferer, or to other persons. This is a contagious disease, and great care must be taken to isolate the patient, and in disinfecting everything that leaves the sick-room. During an attack the bedding should be changed frequently to prevent the body becoming reinfected in parts that are free of the disease.

Fumigate

When the room is vacated by the patient it must be thoroughly fumigated, to guard against the danger of spreading the contagion.

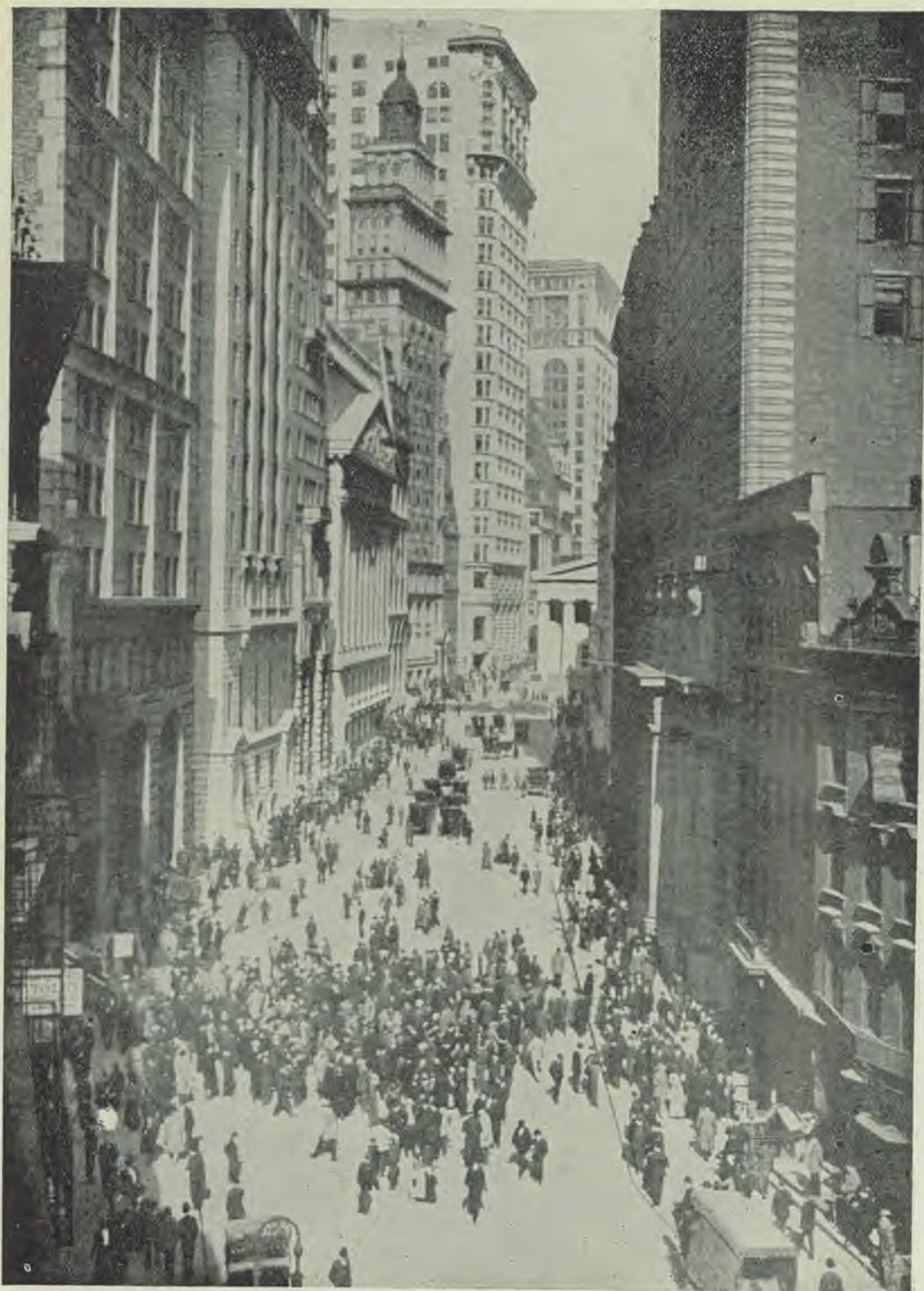
Convalescence

As a word of caution before leaving this subject, it is proper to urge the necessity of exercising the greatest care over the patient during the period of convalescence, which in some instances may extend into weeks. The patient might be bright and lively, and it may not be thought necessary to restrict his liberties in any respect. But erysipelas is a stubborn disease to deal with, and it will surely endeavour to return upon the first invitation to do so offered by the least unwise exposure of the patient before complete recovery is assured. A. S.

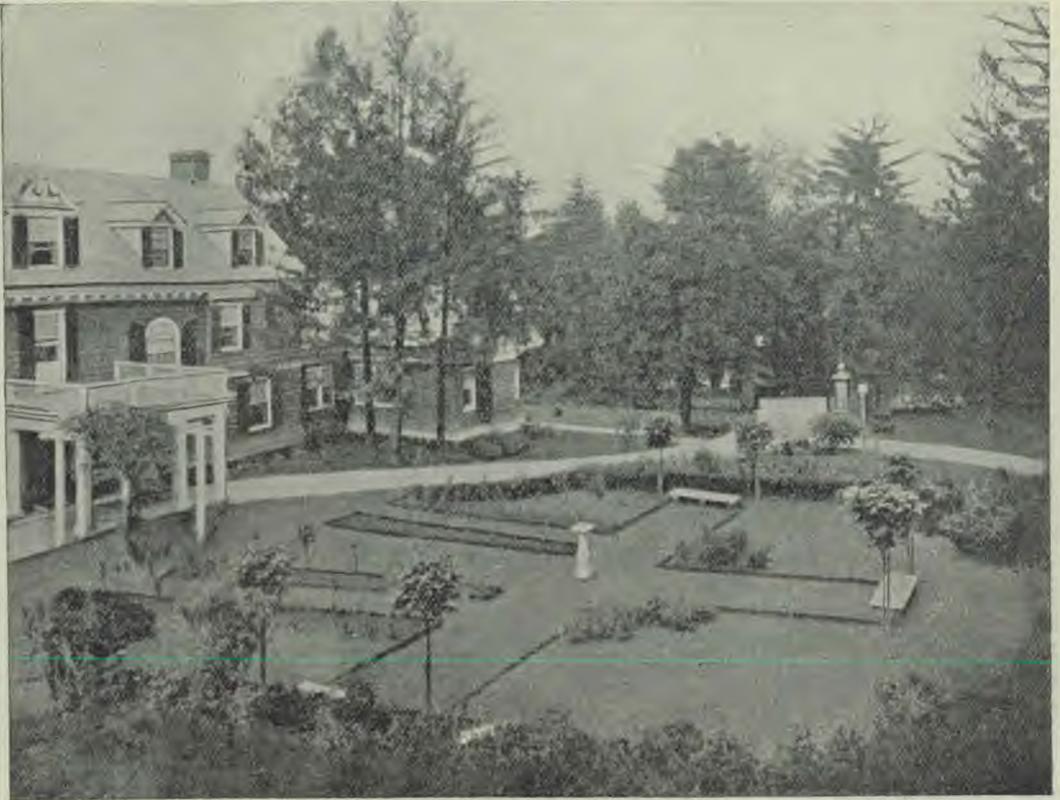
Two to One

LATE one afternoon a newly-made doctor dashed into the room of his legal friend, exclaiming: "Great luck, old man! Congratulate me! Got a patient at last! On my way to see him now!"

Whereupon the legal light-to-be slapped his friend on the back, saying: "Delighted, old chap!" Then, after a slight pause, he added, with a sly grin: "Say, let me go with you! Perhaps he hasn't made his will!"—*Selected.*



A BUSY CITY STREET—DUST-LADEN, GERM-LADEN, NOISE-DISTRACTING



"In Touch with Nature"

By G. B. Starr

MAN, the masterpiece of creation, was created to be in harmonious touch with nature at every point. All below him was made with direct relation to his highest pleasure, comfort, and well being. The trees in his garden home, were either good for food or pleasant to the sight; all ministering to his happiness and health.

Flowers of every hue, perfumed with nature's best, were free for her king and lord in her most tempting resort. Birds in a thousand shades of plumage and a thousand notes of song contributed to the perfect finish of the Creator's ideal for man. But from this ideal man turned to the crowded cities of his own creating, darkened by his own pride of lofty structure, dust-laden, germ-laden, noise-dis-

tracting, its din of sounds drowning nature's voices. Man's head has been dazed, his heart hardened.

Year after year, century after century, man has lived this unnatural life, contrary to his own nature, out of tune with himself and God, until unable longer to endure the strain, nature's long unheeded protest is changed to a pre-emptory command to "halt," and the fine machinery, built for a finer life, refuses longer to continue the perversion of her powers. She cries out for rest. "Back to nature" is her call. "Take me back to the woods, beside the lake, the brook. Take me into the sunshine, the pure country air; let me climb my native mountains; let me drink from my own mother nature's springs; let me lie upon her soft green

carpet and swing my hammock in her trees; let me listen to her gentle mother songs; let her voice only speak to me once more, until she can reclaim me from my waywardness and heal her wanderer's bruises and I am once more at rest and well."

Thus nature restores, but even thus would she constantly bless, did we but appreciate her ministrations, and abide with her continually.

"Out of the cities" is man's only salvation. As long as the tide flows city-ward, the situation will grow worse; sin, sickness and sorrow will increase.

But when again he makes his home with nature, he will hear the voice of God he has lost in his unnatural surroundings and again be restored to health and happiness.

Health

By Ellen G. White

HEALTH is a blessing of which few appreciate the value; yet upon it the efficiency of our mental and physical powers largely depends. Our impulses and passions have their seat in the body, and it must be kept in the best condition physically, and under the most spiritual influences, in order that our talents may be put to the highest use.

Anything that lessens physical strength enfeebles the mind, and makes it less capable of discriminating between right and wrong. We become less capable of choosing the good, and have less strength of will to do that which we know to be right.

The misuse of our physical powers shortens the period of time in which our lives can be used for the glory of God.

And it unfits us to accomplish the work God has given us to do. By allowing ourselves to form wrong habits, by keeping late hours, by gratifying appetite at the expense of health, we lay the foundation for feebleness. By neglecting physical exercise, by overworking mind or body, we unbalance the nervous system. Those who thus shorten their lives and unfit themselves for service by disregarding nature's laws, are guilty of robbery toward God. And they are robbing their fellow-men also. The



HOMELESS AND PENNILESS IN A GREAT CITY

opportunity of blessing others, the very work for which God sent them into the world, has by their own course of action been cut short. And they have unfitted themselves to do even that which in a briefer period of time they might have accomplished. The Lord holds us guilty when by our injurious habits we thus deprive the world of good.

Transgression of physical law is transgression of the moral law; for God is as truly the Author of physical laws as He is the Author of the moral law. His law is written with His own finger upon every nerve, every muscle, every faculty, which has been entrusted to man. And every misuse of any part of our organism is a violation of that law.

All should have an intelligent knowledge of the human frame, that they may keep their bodies in the condition necessary to do the work of the Lord. The physical life is to be carefully preserved and developed, that through humanity the divine nature may be revealed in its fulness. The relation of the physical organism to the spiritual life is one of the most important branches of education. It should receive careful attention in the home and in the school. All need to become acquainted with their physical structure and the laws that control natural life. He who remains in willing ignorance of the laws of his physical being, and who violates them through ignorance, is sinning against God. All should place themselves in the best possible relation to life and health.

A Campaign Without Colds

PEOPLE with the fad for outdoor living could strengthen their theories with testimony from an unexpected quarter if they would consult the "Home Letters of General Sherman." These letters, says a writer in the *Dietetic and Hygienic Gazette*, were not written for public perusal, or with any thought that they would afterward be made public. They are the more interesting for that reason.

"I have been trying to get some pay to send you, for I suppose you are 'short,' but the paymasters cannot catch up, and in a few days I will be off again. I have pay due since January 1, and yet was unable the other day to buy a pair of shoes which I need.

"I have those big boots you sent me from Cincinnati, but the weather is getting warm and they are too close and heavy. They stood me a good turn, however, in the last march, when for weeks we were up to our eyes in mud and water.

"When we got here the army was ragged and hard up, but already our new clothing is issued, and we challenge the world to exhibit a finer-looking set of

men, brawny, strong, swarthy, a contrast to the weak and sickly-looking fellows that came to me in Kentucky three years ago.

"It is a general truth that men exposed to the elements don't catch cold, and I have not heard a man cough or sneeze for three months; but were these men to go into houses, in a month the doctors would have half of them. Now the doctors have no employment. I myself am very well."

This was, as readers will remember, in the midst of one of the most trying and strenuous military campaigns modern history records. In this army were nearly one hundred thousand men; they marched nearly every day, and on scant rations and with many privations; they marched in swamps, as the general says, "up to their eyes in mud and water," and they slept in just such environment with wet feet and drenched clothes.

Often it was a problem to find a place to lie down where the water was not so deep as to drown them when recumbent. They gathered branches from trees and rails from fences where they could find them, and when they had time gathered moss and twigs to cover the corduroy of their couches, to keep them drier and out of the water, and thus slept in the open; and their general says, "I have not heard a man cough or sneeze for three months."

The Eye and the Oculist

IN a recent number of a popular magazine a writer has given a vivid and harrowing account of his experiences when his time came to be fitted with glasses. He tells of his wanderings from doctor to doctor with all sorts of symptoms that could not be relieved, until, although he was not having any local eye trouble, it occurred to him to try an oculist, who immediately found the eyes to be at fault.

The vicissitudes into which this discovery plunged him, the months of experiments with wrong glasses, the criminal incompetency of many opticians, the un-

certainty and costliness of the whole process make melancholy reading. One is driven to the conclusion that only the wealthy "leisure classes" will ever have the time, let alone the money, to indulge in properly fitted glasses.

We are all becoming educated to the significance of eye-strain in its deplorable consequences to the entire physique, and even if we only partially accept the accusations and conclusions of the writer here mentioned, it would be desirable that our education should go on until the opticians are forced by awakened public opinion to furnish proper lenses, and to equip their workrooms with the proper machinery for turning them out. In the meantime there are several ways in which the wearer of glasses can help himself, and with regard to these points the article referred to is most helpful.

The most scientifically fitted glasses in the world will do more harm than good unless they are properly kept and correctly worn. It is a strong statement to make, but most people wear dirty glasses, even those who are fastidiously careful in all other respects. Peering through any clouded and uncertain window is a strain upon the vision. How much more must the strain be when the window is so close to the eye that it is almost a part of it!

In this matter adults can look after themselves, but happy is the mother whose child does not need glasses, for with children it is a matter of unceasing vigilance to keep them free from coatings of butter and jam and tears; yet this *must* be done, or all the benefit of the glasses is lost. Another matter in which one can be one's own salvation is that of the proper angle. Glasses must be worn at the exact angle for which they were prescribed and no other. For this reason many people, and all children, do better in spectacles than in eye-glasses. The glasses should be fitted to the eye by the optician, after which care should be taken not to handle and loosen the frame. If this occurs in the slightest degree, they should again be fitted and tightened.—*Youth's Companion*.

Fun in the Home

HALF the misery in the world would be avoided if people would make a business of having *plenty of fun at home*, instead of running everywhere else in search of it.

"Now for Rest and Fun." "No Business Troubles Allowed Here." These are good home-building mottos.

When you have had a perplexing day, when things have gone wrong with you and you go home at night exhausted, discouraged, blue, instead of making your home miserable by going over your troubles and trials, just bury them; instead of dragging them home and making yourself and your family unhappy with them and spoiling the whole evening, just lock everything that is disagreeable in your office.

I know a man who casts such a gloom over his whole family, and so spoils the peace of his home by insisting upon talking over all his business troubles, that his wife and children fairly dread to see him come home, because, when they see the thundercloud on his face, they know that their fun for the evening will be spoiled.

Just resolve that your home shall be a place for bright pictures and pleasant memories, kindly feelings toward everybody, and, as Mr. Roosevelt says, "a corking good time" generally. If you do this, you will be surprised to see how your vocation or business wrinkles will be ironed out in the morning and how the crooked things will be straightened.

Make a business of trying to establish a model home where every member of your family will be happy, bright and cheerful. Fill it with bright, cheerful music. Physicians are employing music more and more in hospitals and homes, because of its wonderful healing properties. If there are no musicians in your family, get a graphophone, a piano-player or some other kind of automatic musical instrument. There is nothing like music to cheer up and enliven the home and to drive dull care, the blues and melancholy away.

Music tends to restore and preserve the mental harmony. Nervous diseases are wonderfully helped by good music. It keeps one's mind off his troubles, and gives nature a chance to heal all sorts of mental discords.

You will find that a little fun in the evening, romping and playing with the children, will make you sleep better. It will clear the physical cobwebs and brain-ash from your mind. You will be fresher and brighter for it the next day. You will be surprised to see how much more work you can do, and how much more readily you can do it if you try to have all the innocent fun you can.

We have all felt the wonderful balm, the great uplift, the refreshment, the rejuvenation which have come from a jolly good time at home or with friends, when we have come home after a hard, exacting day's work, when our bodies were jaded and we were brain-weary and exhausted. What magic a single hour's fun will often work in a tired soul! We feel as though we have had a refreshing nap. How a little fun releases us from weariness, and sends a thrill of joy and uplift through the whole being!

Laughter is as natural a form of expression as music, art, or work of any kind. We cannot be really healthy without a lot of fun.

There is something abnormal, something wrong in the parent who is annoyed by the romping, the playing, the laughter of children. The probabilities are that his own child-life was suppressed. The man who would not grow old must keep in touch with young life.

Do not be afraid of playing in the home. Get down on the floor and romp with the children. Never mind the clothes, the carpets or furniture. Just determine that you will put a good lot of fun into your life every day, let come what will.

Have all the fun you can at the table. It is a place for laughter and joking. It is a place for bright repartee. Swallow a lot of fun with your meals. The practice is splendid. It is the best thing in the world for your health. It is better than

swallowing dyspepsia with every mouthful of food. The mealtime ought to be looked forward to by every member of the family as an occasion for a good time, for hearty laughter, and for bright entertaining conversation. The children should be trained to bring their best moods and say their brightest and best things at the table. If this practice were put in force *it would revolutionise homes and drive the doctors to despair.*

I know a family in which joking and funny-story telling at meals has become such an established feature that it is a real joy to dine with them. The dinner hour is sure to afford a jolly good time. There is a rivalry among the members of the family to see who can say the brightest, wittiest thing, or tell the best story. There is no dyspepsia, no nagging in this family.

A few hours of sunshine will do for plants what months of cloudy weather could never do. It is the sunshine that gives the delicate, inimitable tint of beauty to fruit and flower.

I have been in homes that were so sombre and sad and gloomy that they made me feel depressed the moment I entered them. Nobody dared to say his soul was his own, and to laugh out loud was regarded almost as a misdemeanour. If the children made any noise they were told to stop, sit down, hush up, be quiet. Everybody who attempted to have a little fun was promptly squelched. One felt, even though it was not seen, that this sign was everywhere about the house: "No joking allowed here. Laughter forbidden. No romping or playing here. Life is too short and too serious a matter for such frivolity. Besides the furniture might be scratched, bric-à-brac might be broken, or the children's clothes soiled or rumpled."

Most homes are far too serious. Why not let the children play to their hearts' content. They will get rubs enough, knocks enough in the world; they will get enough of the hard side of life later. But resolve that they shall at least be *just as happy as you can make them*

while at home, so that if they should have unfortunate experiences later, they can look back upon their home as a sweet, beautiful, charming oasis in their life; the happiest spot on earth.

Let them give vent to all that is joyous and happy in their natures, and they will blossom out into helpful men and women instead of sedate, suppressed, sad, melancholy natures. Spontaneity, buoyancy, the bubbling over of animal spirits are worth everything in one's education. Children who are encouraged in self-expression of their play instinct will make better business men, better professional men, better men and better women. They will succeed better and have a better influence in the world than those who are repressed.

Only the happiest children can make the happiest and most useful citizens. Play is to the child what sunshine is to the plant. You cannot give children too much heart sunshine, too much love. They thrive on fun. It is their normal food and the home is the place above all others where they should get an abundance of it. Someone has said that if you want to ruin your children let them think that all mirth and enjoyment must be left on the threshold when they come home at night. When once the home is regarded only as a place in which to eat, drink and sleep, the work is begun which often ends in degradation.

Children who have no childhood often develop hard, cold, unsocial dispositions which are a great handicap to their success later in life.

A happy childhood is an imperative preparation for a happy maturity. The disposition, the cast of mind, the whole life tendencies are fixed in childhood. An early habit of cheerfulness—the fun-loving habit—has a powerful influence over the mature man and his career.

A happy childhood is the best possible protection against ill-health, unhappiness and failure; the best possible protection against the development of handicapping peculiarities, idiosyncrasies and even insanity. A large percentage of the

people in the insane asylums did not have a happy childhood.

It is of immense importance to teach children to avoid unpleasant, disagreeable, soul-harrowing books. Keep them from reading morbid stories, morbid descriptions of crime and misery in the newspapers. Do not let these black pictures etch their hideous forms into their tender, sensitive minds.

Children should be taught the art of getting enjoyment out of the common things of life. This will prevent the development of a restless tendency, a disposition to always think that they would be happier if they were only somewhere else, under other conditions.

If you want your children to be well, strong and happy, try to cultivate the sense of humour, the fun instinct, in them just as much as possible. Teach children to laugh at their misfortunes and to see the ludicrous side of unpleasant things which cannot be avoided.

"Mirth is God's medicine; give the children a lot of it."

Blessed indeed are the joy makers.
—*Orison Swett Marden.*

Public Drinking-Cups

IF harmful germs exist everywhere we should think that the rim of the public drinking-cup must be a favourite breeding-ground for them. In every public institution which runs a water-tap, and at every street fountain, the iron or enamel cups are not changed until they are actually worn out. As for the disinfection of them, such a thing is not only not attempted, but is never thought of. And yet how many thousands of lips of men, women, and children (white, black, and yellow) press each cup during its period of existence. That is not the worst feature. We have often observed the public drinking-cup dangling at the full length of its chain, to be licked by any passing dog, or covered with the filth which is so freely stirred up from the streets by every breeze. No one who values his health should use

a public drinking-cup if it can be avoided. Children more than adults use the street fountains, and they should be warned of the dangers lurking on the edge of the common cup.—*Selected.*

Tooth Decay—Its Significance and Remedy

By D. H. Kress, M.D.

TEETH decay for the same reason that fruits and vegetables decay. When a tree is laden with decayed fruit, it is an evidence that the tree is diseased. The tree, not the fruit, demands the attention of the gardener. A practical fruit-grower will remedy the condition, not by patching up the fruit, but by digging about the tree, and putting into the soil that which is lacking. Dentists are a necessity, but they cannot reach the root of the trouble. This must be done by the individual.

In health, the saliva and mucous membrane of the mouth have power to destroy germs. Deadly germs planted on the septum of the nose are destroyed in three hours if the person is in health. Diphtheria germs or the germs of tuberculosis, in the mouths or throats of healthy people, are known to be harmless. Germs feed only on dead or diseased tissue. There must first be an undermining of the vitality of the tissues before it is possible for the germs to do any serious injury. It is just as impossible for germs to grow on the tongue or teeth of a healthy man as it is for mould to grow on a healthy tree. Tooth decay is therefore always an evidence of general deterioration. When tooth decay exists, the man as well as the teeth needs attention.

The physique of the British people was some time ago discussed in the House of Lords. This was called forth by the fact that 15,000 out of 49,000 men from rural districts were rejected as recruits for the army. Such rejection usually arises, it was said, from "bad teeth and inferior physique."

Dental decay was uncommon among our ancestors. Dr. William Wright, in a

lecture on anatomy, given before the students of the University of Birmingham, referred to the teeth and jaws in a collection of human skulls which were found in the East Riding of Yorkshire. The most notable feature of the skulls was the teeth. The teeth were regular, few were missing, and all were free from disease. Jaws were exhibited in which the teeth were in the most perfect condition imaginable.

The free use of soft, sloppy foods, and improper mastication, are undoubtedly responsible for much of the general and dental deterioration. Mastication is nature's method of keeping the teeth clean. It also improves dental nutrition, by bringing a greater amount of blood to the teeth. The improvement of the quality of the saliva resulting from thorough mastication will also discourage the growth of germs. The normal saliva is known to be destructive to germ life. Thorough mastication is necessary for complete digestion. And improperly digested food cannot properly nourish the teeth or the other structures of the system.

Improper mastication also favours gastric and intestinal fermentation. This results in the formation of lactic, butyric, acetic, and other irritating acids, which are destructive both to the general system and to the teeth, especially when regurgitated, as is often the case in dyspepsia.

Cows fed on distillery slops become toothless from lack of mastication. The teeth either undergo decay or become loose and drop out. The monkey eats only solid foods, and as a result the monkey has sound teeth.

Hot foods or drinks crack the enamel, and are therefore injurious to the structure of the teeth, and encourage decay. It has also been suggested, and I think very justly, that the use of flesh foods encourages dental decay by the retention of pieces of muscle fibre between the teeth. These furnish an admirable culture medium for the germs which are most destructive to the teeth. Sugar, candies, and other sweets cause dental decay. Sweets favour fermentation and

the development of acids which are injurious to the enamel of the teeth. Soups, porridges, pastries, and soft grain preparations are all imperfectly cooked as a rule. The paste gathers around and between the teeth, and ferments. These are a prolific cause of tooth decay.

Another important cause of the decay of the teeth is the failure to furnish proper food for their nourishment. In the erection of a durable building, the architect exercises great care in the selection of suitable material. Nails and iron are needed as well as timber. The same good sense should be exercised in body-building. The body must be furnished with the elements out of which its various structures are to be built. It has need of bone-forming elements as well as of muscle-building and heat and energy-producing substances.

Fine-flour bread is freely used in this country, but the salts which build up its bony structures are largely rejected in its milling. Wholemeal bread contains two hundred per cent. more phosphates than the white bread. These salts must be furnished to the system in an organic form.

In order to have sound teeth, it is necessary (1) to live temperately, and adopt a dietary composed chiefly of fruits, grains, vegetables, and other foods which are rich in salts; (2) to eschew foods which readily undergo decay in the mouth, such as meats and cheese; (3) to eat food requiring thorough mastication.

THE new building of the Pittsburg Athletic Association, which cost more than two hundred thousand pounds, is the finest structure ever built wholly for athletic purposes. The work of the association is of broader scope than that of most similar organisations. It is based upon physiology and hygiene, rather than upon competitive athletics, and the membership includes women and children, as well as men.

Why He Couldn't Remember

A KINDERGARTEN teacher tells a good joke on herself. She has been very strict in requiring written excuses from the mothers in case of absence. The morning of the big snowstorm only a few of the babies made their appearance. The next day they all came with written excuses except one tot, named Willie. When asked for his, he said: "I did ferdit it."

He was cautioned to bring it the next day.

Willie's mother was quite disgusted. It seemed to her that anyone with the slightest pretensions to grey matter ought to know the reason for his absence.

The next morning he arrived all rosy with the cold, and handed the teacher his excuse. It read:—

"Dear Miss C——: Little Willie's legs are fourteen inches long. The snow was two feet deep. Very truly yours, Mrs. J——."—*Columbus Dispatch*.

Healthograms

THE Chicago Board of Health has just published the following sensible "healthograms" for the public benefit:—

"Our one first duty—to keep well.

"It is easier to retain than to regain health.

"Good food, good drink and good air promote good thinking and good working.

"Bathe the body daily—an active and clean skin relieves the lungs and kidneys of much work.

"Personal cleanliness is more than a fad or a luxury—it means health and life.

"Cleanliness costs little—sickness costs much."—*Selected*.

THE immense value of public parks and playgrounds for children is shown in the case of London. This city has three times the percentage of open breathing space as Paris and has only one-third the percentage of deaths from tuberculosis. Parks are real landmarks in our civilisation.



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SNOW SCENE IN THE AUSTRALIAN ALPS

Plants Instead of Flowers

"WHY did you buy that little primrose to send to your sick friend instead of those lovely carnations?" asked one lady of another as they passed from the city greenhouse out into the street.

"Well, some years ago," the other replied, "I was very ill. My friends had almost given up hope, and although, of course, they did not tell me that, the sense of their depression was upon me and I was far too weak to rise above it. Magnificent hothouse roses and lovely bunches of carnations, intertwined with smilax or other greenery, daily came to my door from anxious and sympathetic friends. They all bore the message of good will, and I begged to have them left in my sick-room, for I loved their bright colouring, so that finally a good-sized table was nearly filled with them. But instead of causing my spirits to rise they produced the opposite result. As I watched those flowers each day, gradually their beauty faded and they were carried from the room. 'And so,' thought I, 'it will be with me. Every day I am growing weaker, and before long I, too, shall be carried to my last resting-place.' Thus my gloomy

thoughts were helping along that very physical ailment which we were trying so hard to combat.

"About this time a good, sensible aunt, who had had considerable experience as a nurse, came to assist in my care. She promptly banished all the hothouse flowers with their heavy odour, and in their place put a single little plant just full of buds and with one sweet, pink face peeping out at me from its dark-green foliage.

"Whether or not it had anything to do with my recovery I do not know, but that little growing plant, with its blossoms each day unfolding before my eyes, seemed to put new hope and courage into my veins, and from that day I began to improve.

"So in place of sending cut flowers to a sick friend I like to choose some little plant that will be emblematic of hope and life instead of bringing sombre thoughts of decay and death.

"I usually try to carry the gift to the door myself and leave with it a message or note, expressing the hope that, as the little plant shall grow and blossom, so may the invalid's strength increase each day."

"That is indeed a good idea," exclaimed the questioner, "and I shall not forget it."—*Pearle White McCowan.*





The Middle-Aged Woman

THERE comes a time in the life of woman when she is neither young nor old. She is not young, for her hair is silvering, her daughters are entering womanhood, and her sons are "boys grown tall." She is not old, for roses still bloom in her cheeks, her eyes are bright, her mind is clear, her step is firm and elastic. She is middle-aged, and happy is the woman who recognises the possibilities as well as the limitations of this period of life.

She has reared her family. Gone are those days in which her little ones nestled in her arms or clung to her skirts, those days so full of happy service and loving ministry. Yet the future years may bring new joys of their own. Little grand-children may nestle in the arms that are aching to be filled. And these are but symbols of the new joys and responsibilities that may come into the life of the middle-aged woman.

The young mother is so absorbed in the daily task of washing and dressing, and feeding and teaching her babies, that she has little time for her own physical, mental, and spiritual culture. She may snatch bits of mental food now and then between duties, indeed she must if she is to keep pace with the development of her boys and girls, but she cannot find time to fully satisfy her heart's craving for self-improvement. Nor can she do as

much as she would like in the interests of her social circle, or of her neighbourhood. She is asked to engage in various lines of church work, but these calls she must always make secondary to her home duties.

But now that her children have grown and gone out into the world, the middle-aged woman may devote herself to the many interests which in her younger years she was obliged to neglect. She may take time for the morning paper so that she may keep in touch with the world. She may read good books and enjoy good music. She may be friendly with her neighbours, she may visit the sick, she may write chatty letters to the lonely, she may aid every good cause.

But of all the blessings which come to the middle-aged woman perhaps none is greater than the opportunity of taking care of herself. She may enjoy a morning bath and an afternoon rest. She may spend sufficient time at her meals to admit of thoroughly masticating her food, and she may occasionally indulge in a day in bed. In short, she may moderate somewhat the pace she has maintained through all the busy years that are past. It is just here that so many middle-aged women fail. They do not moderate their pace. They hurry and worry and rush frantically about their work, just as though they were back in the old busy days when

there was a houseful of young children to care for.

The middle-aged woman needs rest and good care, for she is passing through a physical crisis. At the close of the child-bearing period physical changes occur in the organism which are opposite in character to those which accompany the period of puberty. These changes affect chiefly the nervous system. Thus it happens that the woman who is passing through this changing period is often nervous, irritable, or depressed. She sleeps badly and may be subject to various nervous disturbances. Perhaps the most common of these nervous disorders is heat flushes. This annoying symptom is caused by a failure of the nerves to control the blood-vessels of the affected part. Heat flushes occur most frequently in the face. The attack begins suddenly, the intense flushing of the face being accompanied by a sense of oppression. In a few moments perspiration may intervene, in which case the relief is immediate. If the perspiration does not occur the discomfort is of longer duration. These flushes of heat may occur infrequently, or many times in the day. Very often the woman is awakened out of sleep by their occurrence.

The treatment of this and other nervous disturbances consists of any measure which strengthens the nerves and improves the circulation. One of the most beneficial procedures is the cold bath, either the mitten friction, the shower, spray, or plunge. That form of cold application should be chosen which seems best adapted to the strength of the individual.

The following suggestions concerning cold bathing may not be out of place:—

1. The bath should be taken daily except for the periodical interruption of a few days.

2. It is best taken immediately after rising, while still warm from bed.

3. The bath should be taken as quickly as possible and should be followed by vigorous friction either with a rough towel or a flesh brush.

4. The woman should dress immediately after the bath, so as to prevent chilling.

5. Gentle exercise should follow dressing if there is any tendency to chill.

6. In case of delicate women whose reactive powers are feeble, it is well for the feet to be in hot water while the cold water is being applied to the rest of the body.

If the above suggestions are followed the cold bath cannot fail to benefit the health.

In order to keep the skin active and to equalise the circulation of blood, the woman should have a full warm bath two or three times a week in addition to the cold morning bath. Before entering the warm bath, the head and neck should be thoroughly cooled. If there is any tendency to congestion of the head, a cold compress frequently renewed, should be kept around the neck during the bath. The bath should be cooled before leaving it, for only by so doing can cold-catching be prevented. It is usually best to take the warm bath just before retiring, as a good night's rest is often insured by this means.

There are a number of local treatments which may relieve heat flushes and congestion of the head. The face may be sponged several times daily with very hot water, or with hot and cold water alternately. The hot foot-bath, or better still, the hot leg-bath may be tried. If taken just before retiring, this simple measure may prevent the occurrence of heat flushes during sleep. To be effective, the bath should be made as hot as can be borne, and its duration should be from five to eight minutes. The feet should be cooled with a dash of cold water on being removed from the bath. A cold compress may be applied to the head and neck during the bath.

Insomnia

As sleeplessness is frequently caused by heat flushes, the treatments just mentioned may give relief. If the insomnia be due merely to an over-active condition of the

brain, the following treatment taken on retiring may induce sleep. Place the feet in hot water and apply large hot fomentations to the abdomen for ten minutes. On removing the fomentations, apply a cold abdominal compress. This should consist of a towel or cloth long enough to reach round the body. This is wrung from cold water, and is then well covered with dry flannel, being secured with safety pins. The compress should be left on all night. This combined treatment relieves the congestion of the head by drawing a large amount of blood into the large abdominal veins. Another simple measure which relieves cerebral congestion, is the application of heat to the spine.

Constipation is another symptom which is often troublesome during the change of life. This condition can usually be overcome by means of proper dieting, free water-drinking, exercise, and abdominal massage. Although self-administered massage is not so beneficial as the thorough massage given by a trained nurse, it is better than none. The woman may spend five or ten minutes morning and evening kneading the abdominal muscles. This will increase their tone, and will stimulate the bowels to greater activity. Under no circumstances should constipation be neglected during this period of life, as pelvic congestion, headache, and mental depression are almost certain to result.

Due attention should be given not only to the relief of annoying symptoms, but to the improvement of the general health. The food should be simple and nutritious, yet appetising. Fruits should be partaken of freely, as they will keep the kidneys and bowels in a healthy state. At least eight hours' rest in bed should be the rule. The bedroom windows should be widely opened summer and winter. Closed windows and mental depression go together. Speaking of mental depression, the middle-aged woman must not give way to it. For her own sake and that of her friends, she must be bright and cheerful. And well she may be, knowing that

if she cares for herself properly during this trying period of change, she will most likely enjoy many years of happy and comfortable living.

The converse is also true. If the health be neglected during this time of life, the woman may pass into a state of semi or total invalidism. There are a number of serious pelvic disorders which are more likely to develop during the change of life than at any other time. Because of this, the sensible woman will promptly consult a physician in case of any malady, pelvic or otherwise, which does not yield readily to home treatment.

And now a word in closing: The middle-aged woman is often tempted to become lax in her habits and in the care of her person. Since she is no longer young, she thinks it does not matter how she dresses or does her hair. But it does matter very much. The middle-aged woman may be positively charming if she be always fresh and dainty. While it is true that she parts with her girlish beauty, she may acquire new charms and graces. With her silvering hair, her gracious expression, and her becoming dignity, she possesses a beauty which can crown only mature womanhood. E. S. R.

PARENTHOOD is never without its worries. A New Jersey man who celebrated his one hundred and first birthday the other day, told his callers that the only thing which troubled him was the poor health of his seventy-six-year-old son.

DOCTOR FRIEDJUNG of Vienna has been studying the comparative health of children who are the sole offspring of their parents and children who are members of large families. He finds that of "only children" but one in eight is thoroughly healthy. Of the children of large families, on the other hand, two-thirds are healthy. The difference is attributed to overmuch care, petting and solicitude bestowed on the "only children."—*Selected*.

WHAT A MAN SHOWED A GIRL



"What a superb lily!" said the Girl. "Isn't it!" said the Man. He was going to marry her. "Let me show you something," he said.



"I am going to tie this string around this lily," said the Man. "But why?" asked the Girl. "You'll hurt it, won't you?" "You'll see," said the Man.



The next day the Girl and the Man came back to the lily. It was dead. The juices could not rise to the flower and it starved to death. "Oh, what a shame," said the Girl.

But That Evening the Girl Loosened her Corset!

Does Motherhood Pay?

By Helen Adair

THE eternal sacrifice of motherhood" was never more fully exemplified, nor the inevitable law of compensation more gloriously vindicated, than in the life of Susanna Wesley. She was a lady both by birth and breeding, and was not only beautiful, but accomplished, a woman of rare judgment and sterling piety; yet she cheerfully poured out her youth, beauty, comfort, health, accomplishments, her wisdom and her life, before the altar of childhood.

In the midst of poverty and misfortune, during a period of riot and outrage, she gave birth to nineteen children. Sacrifices for them, however, did not cease with their birth. During the long, trying years of infancy, childhood, and youth, she personally attended to their creature comforts, and to their mental and moral education. On, into mature life, she carried them each on her heart, saving them from false moves, and encouraging them in right paths, by her prudent and loving counsel.

Crying never won anything in the Epworth parsonage. In sickness and in health the children were expected to be obedient, polite, and unselfish. One result was, the most unpleasant medicine could be given without any difficulty. Much of the clamour and hostility incident to childhood was also banished by the invariable rule that no promise was allowed to be broken, no gift reclaimed, and no brother's or sister's belongings taken. Temptations to falsehood were almost entirely eliminated by the habit of never punishing them for a naughtiness confessed.

As soon as one of her children was five years old, she became its school-mistress. Samuel Wesley, her grandson, says that "she had the happy talent of imbuing a child's mind with every kind of useful knowledge in such a way as to stamp it indelibly on the memory." No

talking or playing was allowed in school hours, and no lesson was ever left until it was perfectly learned. At the close of the morning session, all that had been learned that morning was repeated; and at the close of the afternoon session, all that had been learned during the day was repeated. The progress made under such a teacher and such methods was "almost incredible."

When their house was burned, her children were kindly received into several different families, and were, therefore, separated from their mother for a time, and allowed to mingle with good and bad children, and grow up more as children usually do. When she was at last able to gather her family together again, she had a difficult task to bring them back to the good old reverent and obedient ways. They had a taste of the "tree of knowledge of good and evil." But she set herself bravely to recover the lost ground. "Several new features were now introduced into the training," says John Telford. "Psalms were sung both at the opening and close of school. . . . The habit of general retirement at five o'clock . . . was then entered upon. The oldest child took the youngest that could speak, the second the next, and thus all the children formed themselves into pairs to read over the Evening Psalms, with a chapter from the New Testament. Before breakfast the Morning Psalms and a chapter of the Old Testament were read in the same way." In addition to all this, she read to her children and servants, and explained spiritual things to them so interestingly and effectively that one boy told his parents, and they asked permission to attend. Then others joined, until, at one time, two hundred persons were present, and many more unable to enter because of lack of room. Besides this, she set apart, every evening, a little time to talk privately with her children,

each child taking his turn on certain evenings. Thus her children breathed in an earnest and spiritual atmosphere from their earliest infancy.

Some thought that she was unnecessarily active in spiritual matters, and inexcusably strict with her children. Her life certainly was swallowed up in the life of her children to a degree that few mothers knew anything about. Her sacrifice was complete. What about the compensation? Did it pay?

"Such was the effect of her training that his father admitted John to the communion when he was only eight years old."

When he was a young man and Fellow of Lincoln, he wrote to his mother: "If you could spare me only that little part of Thursday evening which you formerly bestowed upon me in another manner, I doubt not but it would be as useful now for correcting my heart, as it was then in forming my judgment."

In later life, both John and Charles continued the habit of general retirement at five o'clock, and the love for religious music that grew out of their early morning and evening devotions finally bore rich sheaves of sacred song.

We are told that John had some minor back-slidings for a time after leaving home; but the old habits prevailed, and he was finally thoroughly and gloriously converted. From that time on, his path was a bright and shining light that shone more and more to its setting, and has continued to send up an afterglow that time itself can never quench.

He was temperate, exceedingly careful in the choice of his friends, generous and kind, and so unselfish that he would go without common necessities in order to help the unfortunate. "When he had an income of thirty pounds a year, he lived on twenty-eight, and gave away two. Next year he received sixty pounds, and gave thirty-two in charity. By limiting his expenses to the same sum, he was able to give away sixty-two pounds the third year, and ninety-two the fourth."

Like Daniel, John Wesley dared to stand alone and trust the consequences with God. He feared neither single rioters nor mobs, but moved steadily on doing the work to which he was called, and oftentimes found that his Master caused even his enemies to be at peace with him. Shut out from the churches, he resorted to the fields, and, in the midst of "formalism, sensualism, and infidelity," lifted up Christ and His righteousness, demonstrating afresh the promise, "And I, if I be lifted up . . . will draw."

"During his half century of itinerant life, he travelled a quarter of a million miles, and delivered more than forty thousand sermons." He crossed the Atlantic twice, paid three visits to the Continent, and sailed forty-two times across the Irish Channel. "His service to popular literature entitles him to a distinguished place among the benefactors of the eighteenth century. Most of his writings and his brother's hymns were published at prices that put them within the reach of all. Many were in the form of penny tracts, so that even the poorest could purchase them."

Mrs. Wesley died at last, and her funeral sermon was preached by her beloved John; but "the mother lived on in her sons and in the glorious work which they were doing for God and their country. Her name has become one of the household names of the world. Isaac Taylor says, with great justice, 'The Wesleys' mother was the mother of Methodism in a religious and moral sense; for her courage, her submissiveness to authority, the high tone of her mind, its independence, and its self-control, the warmth of her devotional feelings, and the practical direction given to them, came up and were visibly repeated in the character and conduct of her sons.'"

"YOUR mind is a garden; whenever you think and feel sin, sickness, failure or trouble, you plant a weed in that garden."

One Mother's Way

AFTER teaching another mother how to take care of her child's health, I went home, and found one of my own boys ruining his eyesight reading fine print in the waning afternoon light. I was going to begin sharply, but remembered the boy's impatient temper, so I said: "Son, did you ever hear the story of the carpenter of Carlsbad?"

No, he hadn't.

"Well, come and sit with me, and I'll tell it.

"There was once a carpenter who lived in Carlsbad, and he was always bragging about the fine things he could build if he had good tools. One night he had a dream. A friend brought him the finest chest of tools that had ever been seen—shining saws, sharp chisels, planes, a brace and bit, and all the things necessary to build a house.

"Take care of these," he said; "for you will need them all your life, and you will get no more."

"When the carpenter woke up, he found it was not all a dream; for on the chair by the bedside was the very tool-chest he had dreamed of—complete, new, and in perfect order.

"You may imagine how pleased he was. But as time went on, he forgot what his friend had told him about taking care of his tools. When he used his saw, he let its teeth get dulled; when he used his chisels, he left them out where they got rained on or rusty. Gradually everything got out of place, broken, and dull-edged. Suddenly there came a call to build a new palace for the emperor. It was to be the finest palace in the world, and the best workmen were called in to help. Our builder came also. Here was the great job he had wanted all his life; now he would make a reputation and a fortune. Alas! when he began to work, he had nothing fit to use. Some of his tools were lost; all were dull, rusty, and worthless; and he could accomplish nothing. Any moral there, Donald?"

"You mean my eyes?"

"Of course, and other things, too. Your faculties are your working tools. Listen, all of you—to the family, who had just come in from school—you children all began with a good box of tools—sharp eyes, sound teeth, perfect hearing, a good stomach, a normal nervous system. I've helped keep your physical machinery in good running order by teaching you the truth about it. But I cannot follow you around all the time, and keep you from blunting your tools. If you will read fine print in the dusk, crack nuts with your teeth, or eat chocolate caramels at bedtime, you will have no eyes, no teeth, no stomach left when you are forty. The doctors are pretty smart nowadays, but I have never heard yet that they could supply you with any of these things to take the place of the old ones that are worn out. Take care of your tools of living."

"Mother," said Ruth, "Tom takes awfully big mouthfuls at the table."

"Does he?" said I. "That's all wrong, and he knows it, but the best way to do is for each one to look after her own mouthfuls, and then she won't have time to attend to mother's business of looking after the family." Ruth subsided.

Then I explained to the children the whole digestive tract—what becomes of the food when we have swallowed it, how too large mouthfuls of unmasticated food overwork the stomach, what part the saliva has in aiding digestion, and what a painful thing it is to get dyspepsia fastened on one. Reproof at the time does not answer. It is forgotten the next minute. The child's attention must be aroused until his imagination takes hold of the matter and urges him to establish good habits.

Besides the general health talks which we have when an occasion like the present arises, I find it is necessary to have quiet sessions with the children separately. I try to teach them reverence for their own bodies. Why not? Does not Paul say they are temples of the Holy Spirit? And if flowers and stars and birds are worth studying as parts of the wonderful

scheme of creation, is not also the human body? The course of the constellations in the sky is no more wonderful than the circulation of the blood; the assimilation of the elements of earth, water, and air by a buried seed, bringing it into new and different life, is not less marvellous than the chemical processes which transform food and drink into flesh and blood.

As I look back upon my own life, I realise that every sickness which wasted my time, sapped my strength, and cost me money, was unnecessary. I slept at a mountain hotel in damp sheets, and had an attack of bronchitis; I ate too heartily and too fast when I was fatigued, and brought on appendicitis; I went riding in a light wrap, and came down with pneumonia. In every case, if I had known or thought, or somebody had warned me, I would have been saved not only the result in actual illness, but also the long after-effects which one never escapes.

Therefore I try to teach my children how to take care of themselves. The time is not long before they will be going away from me, out into the world where I cannot reach them with warnings.—*Charlotte Reese Connor, in Ladies' Home Journal.*

Nature's Prodigals

He's gettin' back to Nature after thirty years
away,
He's been busy chasin' dollars while his health
has gone astray;
He forgot about his stomach till it went upon
a strike,
An' he's humped an' all bent over, sort o' sour
an' peevisish-like;
He ain't had no rest, I reckon, for a score o'
years an' ten,
He's been diggin', diggin', diggin', with a day
off now an' then;
He's been starvin' every longin' of his heart
an' soul in town,
An' he's gettin' back to Nature when his work
is nigh run down.
He's gettin' back to Nature, but I wonder
what he'll say
When she asks him for th' treasure that he's
wasted by the way?
For she gave him every blessin' that a mortal
man should get,
An' he traded 'em for money an' he's got the
money yet,
But he can't buy nothin' with it that he really
wants to buy,
An' th' price he paid for riches, it was purty
middlin' high;
So he's gettin' back to Nature, in his lifetime's
dusk an' gloom,
When he's wasted all his substance—like a
prodigal come home.—*J. W. Foley.*





Tortured by Itchy Skin

Has Diet Any Significance?

THE daily newspaper is the avenue through which the minds of the people are reached, and the purveyor of patent medicines loses no opportunity to flaunt his remedies. Some may have their virtues, but others make such extravagant claims, that it is astonishing intelligent people can be misled so easily. If some people can get "something to rub on," they feel they are getting value for their money. We do not condemn external applications for certain conditions, but would advise the sufferer first to find the cause of the trouble and then treat it accordingly.

Many people suffer with itchy and irritable skin and endeavour to obtain relief by rubbing on this and that ointment or lotion, but with only temporary relief. Others again are cured by a certain ointment, and will recommend it to friends for every known itch and are surprised to find a cure does not follow in every case.

Let us learn a few of the common causes of the trouble, and this will enable us to treat it intelligently.

Sometimes itching is due to parasites. An innocent person may be the victim, having come in contact with unclean persons, clothing, or utensils in waiting rooms, etc. Many a missionary doctor has received payment in the way of a

herd of vermin from some poor creature in the slums. In this case nothing is better than cleanliness in body and clothing and the application of sulphur ointment.

Certain constitutional diseases may be the cause. The diabetic is often troubled with itching. In diseases of the liver and gall bladder, when there is obstruction to the flow of bile, itching in the skin is intolerable. In these cases a competent physician should be consulted.

There are few people who realise that errors in diet may cause certain diseases of the skin. The person with rheumatism is troubled frequently with attacks of itching, and sometimes has severe eczema. Dietetic reform will help in these cases.

We wish particularly to show how the skin can be relieved by cleanliness and care in diet.

First we must learn a little about the function of the skin. The work of the skin resembles that of a sewer in a city. It carries away waste matter. If the outlet of the sewer becomes blocked, there is a back flow and the refuse returns to the city and the next thing disease becomes prevalent and many people die. So it is with the skin and other organs of excretion. If there is cessation of

function, poisons accumulate in the system and the patient dies.

The skin and kidneys are co-workers—one cannot do without the other. Foods which influence the kidneys also affect the skin. In the skin there are about two million little tubes called sweat glands. They are distributed over the entire surface of the body with very few exceptions. The glands secrete in twenty-four hours almost two pints of fluid. One authority states that the average quantity in twenty-four hours, in a person clothed, having a temperature of about 90° surrounding the skin, is four to six pints. One is not conscious of so much perspiration as evaporation is constantly taking place as well as absorption by the clothing.

The composition of the urine and sweat are very similar, although some of the constituents vary in quantity, some being found only in traces in the sweat. The main mineral element found in sweat is sodium chloride (common salt). This is derived chiefly from the salt taken in the food. From observations made by Dr. Ch. Achard, Physician to the Hospital Tenon, Paris, we learn that the average person takes about two-thirds of an ounce of salt daily. Of this one-eighth is lost through the skin, most of the remainder through the kidneys.

Richet, an eminent French scientist, tells us that food necessary for a day's requirement contains, naturally, about half a teaspoonful of salt and this is the amount that the body actually requires. Quantities above this are unnecessary and cause overwork on the part of the skin and kidneys. Opinions differ as to the amount of salt necessary, but it has been demonstrated that in certain skin and kidney affections a salt-free diet has proved exceedingly beneficial. An instance is given where a child suffering from a severe form of eczema which resisted all methods of treatment, was put upon a salt-free diet, and a cure was the result.

Under diseased conditions when the kidneys fail to eliminate urea, it has been

observed that the amount found in the sweat is markedly increased so that crystals of it may be deposited upon the skin.

Some persons troubled with chronic constipation have a very offensive perspiration. Their skin is muddy in appearance. The writer has seen the beneficial effect on these individuals of a course of baths and proper diet.

Since it is clear that waste matters of the body are being thrown off continually,

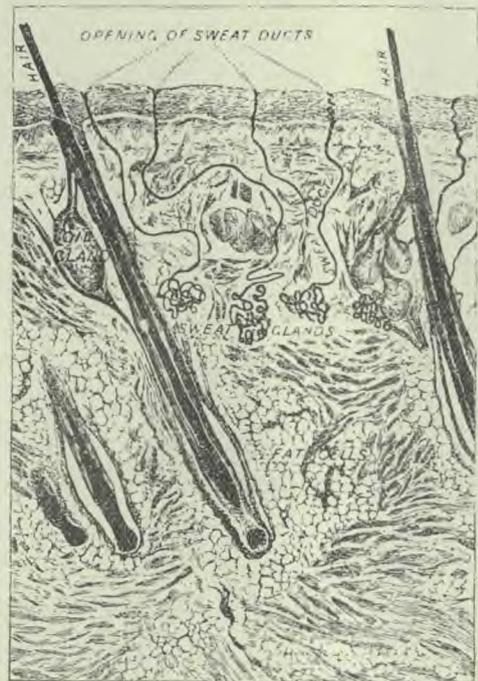


DIAGRAM OF SKIN, SHOWING SWEAT GLANDS

it shows the importance of keeping the skin cleansed from these impurities. Many an irritable skin is relieved by a good cleansing bath of hot water.

Certain articles of diet act as poisons to some individuals. There seems to be a peculiarity of constitution. The writer is acquainted with a friend whose lips and chin break out in blisters every time he eats strawberries. Another person cannot eat eggs or she will get an itchy rash all over the forehead.

Several months ago the writer was asked to see two children suffering with a troublesome skin disease. There was scarcely a spot large enough to be covered by one's finger where there was not a little pimple with the top scratched off. The children were continually scratching. The mother is an intelligent woman and had done all she could in the way of cleanliness. The condition had lasted for more than a year. Inquiry was made into their diet and it was suggested they abstain from eating fish. This was followed with good results, and in a short time there was not a spot to be seen on their skin. For an experiment more fish was given and the rash made its appearance. This happened several times.

The following are some further suggestions from Gautier, the noted French dietetist. We have found them to correspond with our own experience:—

Avoid food too rich in fats. Babies sometimes have eczema because the mother's milk is too rich in fat.

Shellfish of all kinds, also spices, must be discarded; also meat of young animals. Veal is particularly liable to encourage eczema and to cause persistent eruptions of acne to appear, to irritate the intestinal mucous membrane and that of the urinary passages.

Among vegetable foods avoid spinach, rhubarb, beetroot, French beans.

"The excess of nitrogenous food [meat, fish, eggs] with the exclusion of vegetable foods, especially provokes constipation and re-absorption in the intestines of matters undergoing more or less putrid fermentation which are particularly irritating; these the skin finally eliminates while partly oxidising them, but not without harm to itself." E. M. H.

A NOTED hair specialist of Paris declares that if women persist in wearing great masses of artificial hair they will soon become bald like men. These abnormal "puffs" and "rolls" press upon the roots of the hair, and in time it must weaken and fall out.

The Weapon That Bismarck Feared

"A STORY is told of two of the most noted of Germans—Bismarck the statesman, and Virchow the scientist. The latter had severely criticised the former in his capacity as chancellor, and was challenged to fight a duel. The man of science was found by Bismarck's seconds in his laboratory, hard at work at experiments which had for their object the discovering of a means of destroying trichinæ, then making ravages among animals in Germany. 'Ah!' said the doctor, 'a challenge from Prince Bismarck, eh? Well, well! As I am the challenged party, I suppose I have the choice of weapons. Here they are!' He held up two large sausages, which appeared to be exactly alike. 'One of these sausages,' he said, 'is filled with trichinæ; it is deadly. The other is perfectly wholesome. Externally they can't be told apart. Let his Excellency do me the honour to choose whichever of these he wishes and eat it, and I will eat the other!' No duel was fought, and no one accused Virchow of cowardice.

"No one will question the good sense of Prince Bismarck in refusing to accept Virchow's challenge. Every sausage is a challenge to the man who eats it. It may have trichinæ in it, perhaps tapeworm, certainly plenty of germs; and the manufacturer alone knows how many sorts of beasts enter into its composition. The average sausage is more or less of a menagerie."

The Jews and Disease

FISHBERG, in his study of the Jews, attributes the immunity of the Jew from tuberculosis to the many generations of life in the Ghetto, where a hard life has weeded out the susceptibles. The lower infant mortality he attributes to the universal practice of breast-feeding by Jewish mothers, and the better care given their infants. Jewish women very rarely go out to work after marriage.

SUNRISE!

THE sombre skies a sudden bright-
ness show,
The clouds and mist reflect a
golden glow,
And far and near what tender
glories flow
As sunrise comes!

The spreading hills upraise them-
selves in song,
The streams soft murmur as they
move along;
What hopes and yearnings rise in
rapid throng
When sunrise calls!

The slumb'ring city wakens from its
sleep,
The streets and homes no longer
silence keep;
O faithful heart, forget thy sor-
rows deep
With sunrise near!

The night will pass, God's dawn
will come again,
Your doubts and fears will vanish
like the rain,
And you will smile away the haunt-
ing pain—
'Tis sunrise now!

—*Abram S. Isaacs.*

SUNRISE



Sweet Corn

A vegetable which should be tried by every housewife. You cannot buy it from the greengrocer, but you can grow it

WE refer to sweet corn as a vegetable, because in its immature state, it is used as such. It is really a kind of maize—a cereal which is extensively used in different parts of the world. There are numerous varieties, among the most common being field corn, pop corn and sweet corn. It is the latter in which we are especially interested. It is grown extensively in the United States, there being few homes in that country where sweet corn is not on the table every day when in season.

There is no reason why it should not be grown extensively in Australia. In a few isolated spots it is grown to perfection, and upon inquiry it will be found that in the majority of cases it was planted by Americans, or by Australians who had learned the value of sweet corn from their American friends. From any of the large city groceries, it may be purchased in tins at a cost of about a shilling. This is imported from America, and it is to be deplored that the Australians are not wide awake to the fact that their own fertile soil will grow this nutritious food.

The grain for sowing may be obtained from your seedsman at a trifling cost, and should be planted in rows about three feet apart.* Its season may be prolonged

for several months by planting it fortnightly from August or September and onwards, according to locality. For boiling purposes select young, tender, well filled ears of corn from which the milk will spurt when the grain is broken with the finger nail. The following recipes for using sweet corn, we take the liberty of culling from "Science in the Kitchen":—

Boiled Green Corn.—Remove the husks and every thread of the silk fibre. Place in a saucepan, with sufficient boiling water to cover. Cover with the clean inner husks and cook from twenty to thirty minutes, according to the age of the corn; too much cooking hardens it and detracts from its flavour. When sufficiently cooked, place in a heated dish, cover with a serviette and serve at once on the cob. Each person sprinkles salt to taste, also adds a little butter, and the kernels are eaten from the cob.

Baked Corn.—Select nice fresh ears of tender corn of as nearly equal size as possible. Open the husks and remove all the silk from the corn; replace and tie the husks around the ears with a thread. Put the corn in a hot oven, and bake thirty minutes or until tender. Remove the husks before serving.

Stewed Corn Pulp.—Take six ears of green corn or enough to make a pint of raw pulp; with a sharp knife cut a thin shaving from each row of kernels, and with the back of the knife scrape out the pulp, taking care to leave the hulls on the cob. Heat a cup and a half of rich milk—part cream if it can be afforded—to boiling, add the corn. Cook twenty or thirty minutes; season with salt.

Baked Corn, No. 2.—Scrape enough corn from the cob (as directed for corn pulp) to make one and a half quarts. Put into a baking dish, season with salt if desired, add enough milk, part cream if convenient, barely to cover the corn, and bake in a hot oven twenty-five or thirty minutes.

* Full Instructions for cultivating sweet corn will be found on page 243.

Roasted Green Corn.—Remove the husks and silks and place the corn before an open grate, or in a wire broiler over hot coals, until the kernels burst open, or bury in hot ashes without removing the husks.

Stewed Green Corn.—Cut the corn from the cob, and with the back of the knife scrape off all the pulp, being careful to leave the hull on the cob. Put into a saucepan with half as much water as corn. Cover closely and stew gently until thoroughly cooked, stirring frequently to prevent the corn from sticking to the pan; add cream or milk to make the requisite amount of juice, and season with salt if desired. Cold boiled corn cut from the cob and stewed a few minutes in a little milk, makes a very palatable dish.

E. M. H.

How to Use a Broom

NOT a household magazine, nor yet an old-fashioned woman, but the *New York Sun* sets forth, as below, how to spoil a broom, and how to use it properly and to the best advantage. "It makes me sad," said a broom-maker to the *Sun* representative, "to see the way people use brooms.

"You've seen people sweeping ahead of them, pushing stuff with a broom?" he continued questioningly. "Why, the best broom that ever was made, of the best and most perfectly seasoned broom-corn stock that ever was put into a broom, wouldn't stand such treatment as that.

"With such handling, splints will break off. The splints remaining, jagged and uneven, bear unevenly on the surface. You never can sweep clean with it after that.

"Then you know the majority of sweepers always sweep with the same side of the broom to the front, and in this way they soon get the broom lopsided, so they can't use it any other way.

"There couldn't be a worse way. Used in this manner, the splints get bent all one way, and then they meet together at their ends. They don't bite. They don't take hold of the dust as they are meant to do, they don't sweep clean, and when a broom has come to this condition the sweeper is less careful of it, for it is not so good a broom. Such a broom the sweeper feels she may push ahead of her; and when she does this with it, the broom is finally and irretrievably ruined.

"The correct way to use a broom is with the handle, in its initial position, held vertically, so that all the splints in the face of the broom will take hold at the same time and evenly. In sweeping, the broom should be swung back and forth from a point back of the sweeper to a point at an equal distance in front. And then every day the sweeper should turn the broom around, so as to sweep with a different side daily. Used in this manner, the broom wears down evenly.

"I have seen—a delight to the professional eye, and a comfort to everybody who likes to see an implement used to the best advantage, thoughtfully and considerately—I have seen brooms that had been so used that they had worn down almost to the binding threads, but that still bit beautifully.

"I am perfectly well aware," the broom-maker concluded, feelingly, "that brooms carelessly used, as commonly they are, wear out faster, with a corresponding benefit to broom-manufacturers; but still I do really hate to see anybody misuse a broom."

"HEALTH is a harvest. It must be worked for. The seeds must be sown and carefully tended. There must be persistence in the tilling, and patience in the waiting, and vigour in the gathering."

SCIENTISTS are now pretty well agreed that worry is among the most fatal ailments the race is heir to. Where the period of worry is prolonged there is great danger of inducing disease of the brain. Indeed, many of the diseases of that organ are directly traceable to this cause.

LACE curtains which have become tender through long use can be washed without tearing them. Fold each curtain up to about a foot and a half square, and carefully baste the folds together; then wash and stretch as usual. When unfolded, they will be found as good as when taken from the windows; and when ironed, will look like new.

Healthful Cookery

By Miss C. Manson

Mince Scallop on Toast.—One-half pound of nut cheese, one onion grated, two cups of white bean broth, one tablespoonful of chopped parsley, two tablespoonfuls of cornflour, two hard-boiled eggs. Heat the broth to boiling, thicken with the cornflour; chop nuttose fine, add to the broth, also seasoning, and lastly the hard-boiled eggs; salt to taste. Serve on toast or zwieback, cut in even slices.

Parsnip Souffle.—One breakfast cup of cold mashed parsnip, one tablespoonful of fresh bread crumbs, one tablespoonful of fresh melted butter, one egg, and two tablespoonfuls of milk, salt to taste. Beat up parsnip with bread crumbs, milk, also yolk of egg. Beat white separately and fold into the whole of the mixture; put into small buttered pie-dish, and bake in brisk oven. Serve hot.

Rice Fritters.—One cup of rice, three eggs, one-half cup of flour, one pint of milk, one grated onion, one tablespoonful of chopped parsley, salt to taste. Cook the rice, add the beaten eggs and milk, and stir in flour, also salt and seasoning. Drop into boiling oil in tablespoonfuls and fry a golden brown. Serve hot.

Succotash.—Take one cup of lima beans, wash well and put on to cook in six cups of water. As soon as they boil draw to the side of the stove and let simmer for three or four hours till the beans are quite tender but not broken, then add one tin of sweet corn, salt to taste. Heat through and it is ready to serve.

Cauliflower Au Gratin.—Wash and cut in pieces one cauliflower. Boil in salted water till it is cooked, drain off the water, shake into a baking dish, and

cover with white sauce. Have ready some chopped hard-boiled eggs and sprinkle over the cauliflower. Bake in oven fifteen minutes and serve hot.

Parsnips, Browned.—Mash cold parsnips well removing centres if fibrous. Add a little melted butter and salt and beat well. Drop tablespoonfuls on to a greased pan and brush over with milk or white of egg. Put in a fairly hot oven and bake till golden brown. Serve hot.

Potato Puffs.—Four cups of mashed potatoes, two eggs, one teaspoonful of grated onion, two teaspoonfuls of finely chopped parsley. Beat eggs well, add to potatoes, then seasoning. Roll in bread crumbs and fry a golden brown.

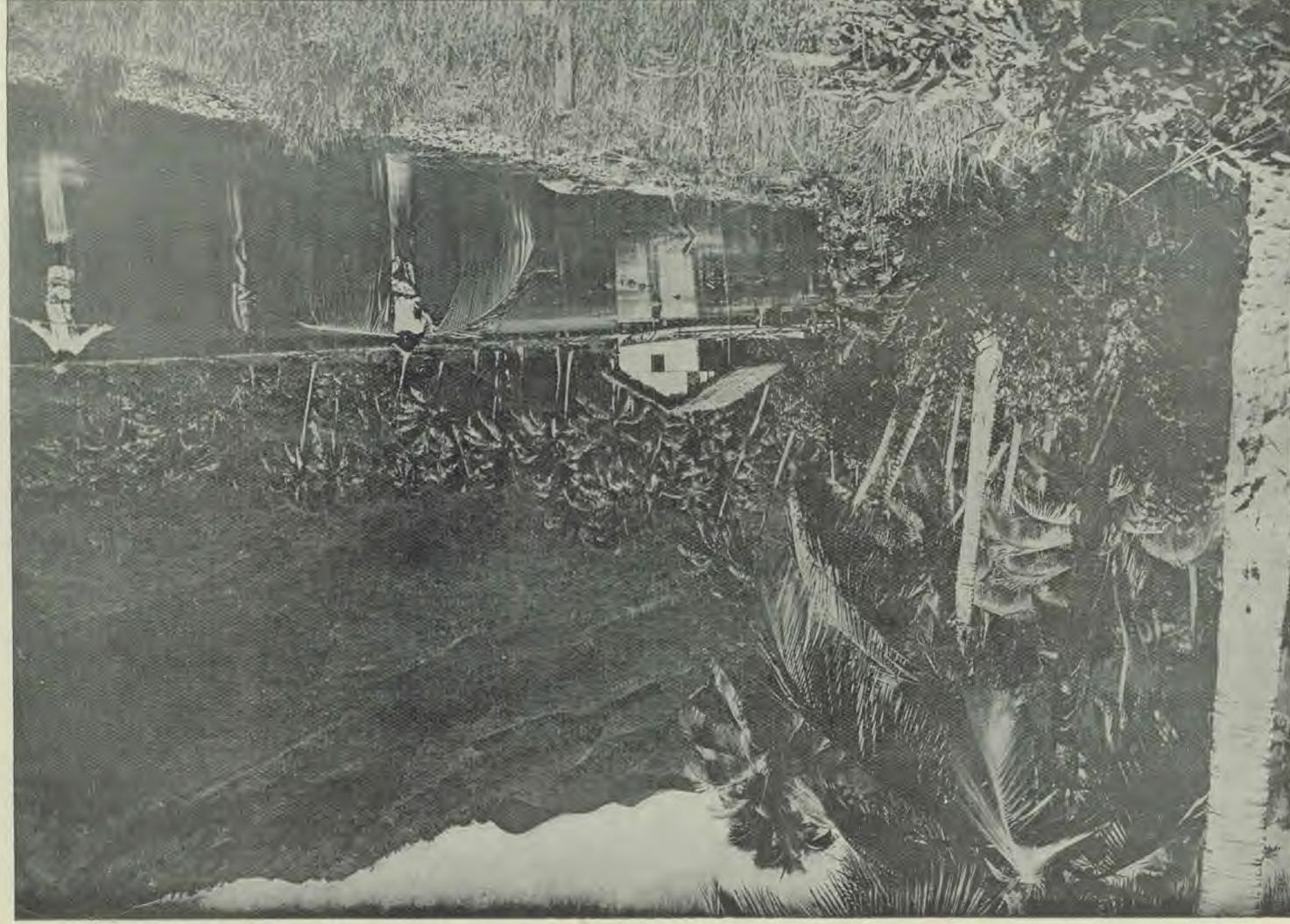
Macaroni and Peas Gravy.—One cup macaroni, one cup split peas. Break the macaroni into small pieces and boil in three cups of water. When thoroughly soft, drain off all the water, and add the peas gravy made by cooking the peas in water till very soft. Rub through a sieve, and thin to the consistency of gravy with hot water. Add salt, and mix well with the macaroni. Reheat, and serve hot.

Steamed Nut Pudding.—One cup zwieback crumbs, one-half cup sago, one-fourth cup tomato pulp, one tablespoonful nut butter, one grated onion, one teaspoonful thyme, one-half cup water, salt to taste. Mix ingredients well together, and steam in a covered basin for three hours. Serve hot with brown sauce.

Vegetable Pie.—One carrot, one onion, three potatoes, one tablespoonful nut butter, one parsnip, one-half teaspoonful thyme, one teaspoonful parsley, salt to taste. Cut the vegetables into rings, cover with water, and stew till tender. Thicken with flour, add nut butter, as well as seasoning. Pour into pie-dish and cover with crust. Bake till crust is cooked. Serve hot.



"Life and Health," August-September



HOME LIFE IN THE TROPICS

Copyright L. Gantner, Photo, Tahiti



The GREAT OUTDOORS

Perfect Home Grounds

THE noblest ideal of home grounds is an outdoor living-room where the noblest home life may be enjoyed amid privacy and peace. An ignoble ideal is show. Therefore, surround the garden or back yard with a high wall, hedge, or fence. Do not let the passer-by look in.

The highest aim is to make a beautiful home picture; a low aim is to make it an outdoor museum. Therefore, frame the house with trees, and then make an open lawn, flanked by masses of trees and shrubs. Do not scatter showy plants all over the lawn.

The refined spirit in landscape gardening is to make your place harmonise with the environment. The uncultivated spirit rejoices in a place that stands out in bold contrast to the environment. Therefore plant green-leaved shrubs instead of purple, yellow, or variegated;

whole-leaved trees instead of cut-leaved; normal trees instead of dwarf or weeping varieties. A few of these are permissible as accent marks, but it is better to have them in the garden, not on the lawn.

The most sensitive people wish to hide unsightly objects, and frame vistas of the best things in the distance. The least sensitive people make no effort to screen outbuildings, billboards, dust, traffic, and city sights. Therefore plant vines on walls, evergreens against buildings, frame the church spire with a pair of cedars, then plant the rest of your boundaries solidly.

The most artistic way to outline the boundaries of your

place is to plant informal borders of shrubbery, because these harmonise with the landscape. The less artistic way is to plant hedges, since straight lines almost never harmonise with the landscape.



MAKE AN OPEN LAWN, FLANKED BY MASSES OF TREES AND SHRUBS

The most appropriate front yard in city or suburbs is the one that conforms to the practice of the street. Therefore, persuade your neighbours to plant the same kind of street tree, at the same distance; and persuade them to have open lawns, bordered by shrubbery—not flower-beds. Make the front garden public and the backyard private.

The ideal material for planting around the foundations of a house is attractive

of the yearly expense for patching, re-seeding, fighting weeds, and for fertilisers.—*W. Miller.*

The Outdoor Living-Room

What Is a Good Garden Worth?

THE right method of financing garden and grounds is to decide beforehand to spend about ten per cent. of the entire



AN OLD FLOWER GARDEN WHERE SECLUSION AND COMFORT MAY BE SECURED

the year round, and makes a transition between architecture and nature. Therefore plant evergreens, such as rhododendrons and laurel—not flower-beds.

The ideal lawn is the one that costs the least to maintain. Therefore, get the soil in perfect condition once for all, by deep ploughing, repeated harrowings, heavy liming, and manuring. "Cheap" lawns cost the most in the end, because

cost of house and building allotment on *the outdoor living-room*. The wrong way is to make the grounds an after-thought, as most people do. You often see a £2,000 house with outside features on which £20 have been spent, or exactly one per cent. Yet you cannot make a good, permanent lawn on a city lot 100 feet square for £20—grading and all.

We might as well face the situation.

And really there is no reason to be glum about it. For a £100 outdoor living-room ought to mean a great deal more to your family's health and happiness than your indoor living-room, which probably costs a great deal more. For £100 you can have a chance to play tennis, croquet, bowls; you can have fruit and vegetables; you can have flowers all the year round, as well as a wealth of beautiful evergreens and shrubs with brightly coloured twigs or berries.

Try it, and you will find it cheaper than doctor's bills, automobiles, sending the family away for the summer, or buying your amusements.—*Selected.*

How to Have the Best Sweet Corn

"WHAT in the world are you doing?" inquired the local postmaster, on his way to church.

"Planting corn," replied the shameless commuter.

"Why, you must be crazy, Perkins. Don't you know folks 'round here don't plant corn for a month yet—not until the middle of November?"

"Yes, I know it; and I'll have fresh corn on my table two weeks before you do. See if I don't."

"It's too cold and wet. The seed will rot in the ground."

"What if it does? How much shall I lose? Threepenny worth of seed! I can plant early corn four times before you even begin to think about ordering your seed. You're sure not to get any early corn, and I stand a chance, at least."

"Well, if your corn does get up," retorted the village prophet as he walked away, "the frost 'll ketch it."

Perkins made no reply. He had something "up his sleeve." He was prepared to cover the young plants with old newspapers if frost should threaten.

But the season favoured Perkins. He didn't have to bother with the papers and, instead of two weeks, it was a whole month that this "greenhorn" from the city had fresh sweet corn daily on his

table before the local sages had any of their own. This is the fourth season he has beaten his neighbours by at least a fortnight; and, as luck would have it, he never had to squander an extra sixpence



GOLDEN BANTAM, YELLOW SWEET CORN—
REMARKABLE FOR EARLINESS

for seed. The truth is, that Perkins is not heretic in this matter. It is orthodox horticultural practice, as well as good common sense, to plant the early varieties a full month before the main crop. Yet few people realise it. The common thing is to plant both early and late corn with the other hot season crops, and then poke fun at the "extra-early" varieties which are not early. "If I've got to choose between good corn and a poor joke," says Perkins, "I'd rather have the corn."

Three varieties of corn are enough for anybody. It is useless to have more, because corn will "mix," which makes a difference in the seed the first year and, some people claim, in the flavour of the green corn. Anyone who really enjoys

fresh vegetables should have an "extra-early," a "second-early" and a main-season variety. The standard sweet corn for the late crop is White Evergreen, so called because the crop does not mature all at once, but yields edible ears for several weeks—a good trait in any vegetables designed for home use rather than for market.

The Country Gentleman is considered by many to have the finest quality of all, but your true "corn crank," like Perkins, will sometimes speak unkindly of it.

To get the earliest corn, one must not only get the earliest variety and plant the seed before the middle of September, but also choose the lightest and warmest soil in the sunniest and most favourable situation. Then give it the very best preparation; provide some quickly available fertiliser, like nitrate of soda, to start it off with a rush; cover the young plants on frosty nights, and keep the surface soil always loose. Deep autumn ploughing is an important advantage, and it is a good thing to practise in any vegetable garden. When the soil is turned up roughly and left exposed all the winter to the frost, the alternate freezing and thawing crumbles the soil more effectively than much hard work with the plough, and such land can be fitted in spring long before other soil can safely be touched.

None of the early varieties are good enough yet. Everything has been sacrificed for earliness. The ears are few, small, and poorly filled; and the plants are less robust and are particularly subject to smut. But some improvement is made every year, and that is why it is

worth while to try the novelties in this class, particularly as it usually costs no more.

How to Plant Corn

Everybody knows how to plant corn. It should be covered about two inches deep. If you are fortunate enough to have a horse, so that you can have long rows and eliminate back-breaking hand-labour, the proper thing is to plant in hills so that you can cultivate both ways. The hills are three or four feet apart each

way, depending on variety and soil; and the regular thing is to plant about six seeds in a spot, thinning the young plants later to three or four in a hill. If it is all hand-work, many people prefer to plant corn in drills or lines, the plants standing eight or nine inches apart in the row. The advocates of this plan claim that it economises space and gives more and better ears. The seed of the early varieties should be sown thickly, because

Planting-Table for Sweet Corn

EXTRA EARLY.—Plant when cherries are in bloom: Peep o' Day.

EARLY.—Plant when cherries are in bloom: Golden Bantam, Early Fordhook.

MAIN CROP.—Plant when apples are in bloom, and for succession until end of December: White Evergreen, Country Gentleman.

FOR AUTUMN USE.—Plant January 1 to middle or end of month: Golden Bantam, Early Fordhook.

Note.—Many growers consider the quality of Golden Bantam so good that they use it for their entire supply throughout the season, making successional sowings every ten days or fortnight.

of the danger of rotting. To insure constant succession of sweet corn (which is one of the biggest items in the enjoyment of home-grown vegetables), plant the extra-early varieties about the beginning of September, the second-early every week or two until the middle of November, or whenever the main crop is planted. The beginning of January is about the latest date for corn-planting.

The main work in connection with a corn patch is hoeing. Everybody likes to hoe—for a little while; then it becomes work. Unfortunately, there seems to be no really good substitute for hard work! "The only new ideas in connection with

hoeing corn," says Perkins, "are, first, buy a wheel-hoe; second, hire some one else." To have the best corn, it is necessary to have the best tillage; it is not enough merely to keep down the weeds.

Even in such a simple matter as eating corn there is a chance for a difference of opinion. "We don't eat corn off the cob any more," said Perkins, one day last summer.

"He thinks it's inelegant," remarked his wife. "You know what a stickler Mr. Perkins is for table manners."

"Oh, we aren't getting stuck up!" retorted Perkins. "The point is, you don't get the best of the corn that way. You get too many hulls. The nearer the germ the sweeter the meat. Take the Country Gentleman, for instance (which I despise); everyone knows it has the longest kernel there is, and how it tapers to a point at the bottom. You only get the top of the corn; the best part stays on the cob."

"What do you do, then?"

"Why, we score it and scrape it off into a dish before we boil it.

"Another thing we do," observed Perkins, "is to plant some climbing beans in the same hills with the corn (after the corn is up); and the beans clamber all over the corn-stalks after we've harvested the ears. It saves the bother and expense of poles. We haven't succeeded yet in crossing beans and corn so as to get succotash right off the plant, but we think corn-stalks look better than bean poles."—*Wilhelm Miller.*

Working Hours of Birds

"OUR hours," said a nature student, "are nothing to the birds." Why, some birds work in the summer nineteen hours a day. Indefatigably they clear the crops of insects.

"The thrush gets up at 2.30 every summer morning. He rolls up his sleeves, and falls to work at once, and he never stops until 9.30 at night. A clean nineteen hours. During that time he feeds his voracious young two hundred and six times.

"The blackbird starts work at the same time as the thrush, but he leaves off earlier. His whistle blows at 7.30, and during his seventeen hour day he sets about one hundred meals before his kiddies.

"The titmouse is up and about at three in the morning, and his stopping time is



GATHERING EARS OF SWEET CORN

nine at night. A fast worker, the titmouse is said to feed his young four hundred and seventeen meals—meals of caterpillar mainly—in the long, hard, hot day.

THE proper ventilation of houses in case of illness has been understood only for a few generations. Yet in 1665, a year in which the plague was most deadly in England, a believer in fresh air wrote a pamphlet in which he said that shutting up infected houses spread the disease.

The Need for Playgrounds

By M. E. Olsen, Ph.D.

NEEDLESS to say, we should not rest with giving playgrounds to boys and girls. Opportunities for healthy, open-air sports should be granted to the youth and young men. The country needs a hardier and

pastimes as tend to health and all-round development.

Unfortunately the opportunity to take part actively in such fine sports as cricket, golf, and tennis is not embraced by every young man. We could wish that there were better facilities for young people of both sexes to engage in suitable recreation in the open air. If some of the public money spent in caring for the "unfit" were used in creating a proper environment for the young people now growing up, it would be wise economy in the end.

We admire the superb examples of the human form that the sculptors of ancient Greece have handed down to us, but we are likely to forget that a national system of physical culture would effect as much for Australia of to-day as for Greece of the fifth century before Christ. Body training was universal in those days; it was a young man's first duty to develop himself physically. Games were not confined to a few; there were no professionals, and no enormous crowds of non-



CITY YOUTH AT PLAY (?)

more virile type of manhood. The vitally depleted cigarette-poisoned weaklings rapidly growing up in our great commercial centres cannot maintain a high physical standard for the race.

Physical stagnation is the bane of these young men. They are muscle-bound, short-winded, and susceptible to colds and catarrh. They are not to blame that their work is of a sedentary nature, though some of them might have chosen better even here; but surely there is no excuse for their leisure hours being generally spent indoors. There should be a strong sentiment in favour of our youth and young men cultivating such open-air



COUNTRY YOUTH AT PLAY

playing onlookers. Opportunities for physical training and competition in the games were open to every citizen, no matter how poor he might be; and the

force of public opinion was doubtless sufficient to overcome any aversion to outdoor activity which might be felt by an exceptional person here and there. It is true that among the more favoured classes in our own country there is a healthy love of the open air, as well as good opportunity for indulging in outdoor sports; but what we lack is some system national in its scope. At present it is the exceptional man who has an environment favouring good development. The great majority, at least, of the dwellers in our large cities are entirely cut off from these health-giving opportunities; and the result cannot but tend toward national physical deterioration.

While there is urgent need of better facilities for getting out of doors, there is also need of a more general use of the facilities already offered. If the young men should save up the money now spent in mild dissipation, or at least in questionable forms of amusement, they would soon have a sum sufficient to enable them to join some society or club which offers the desired privileges.

Judged by its effects on the physique of the race, our twentieth-century civilisation can hardly be called a success. Modern life, it has been well remarked, needs a touch of wholesome savagery. The tendency is to softness rather than to hardness and virility. The fine-clothes occupations are over-crowded. Too many young men are afraid to soil their hands, and would rather be "respectable" than healthy. Physical exertion is distasteful to them, because they have lost the outdoor feeling. Civilisation has them in her straight-jacket. Their lives are running in deep ruts, and are becoming daily more joyless and monotonous. These young men need outdoor training, wholesome exposure to the elements, and an opportunity to "rough it" a little. The invigorating breezes of mountain and moor are required to cure the ills of civilisation. Mother Nature's help must be invoked if we are to bring up healthy sons and daughters. Whitman struck the nail on the head when he said:—

"Now I see the secret of the making of the best persons;

It is to grow in the open air, and eat and sleep with the earth."

Far be it from the writer to deny the benefits of civilisation which in their way are very great; but civilisation is at least a sort of "finishing off" process; it cannot create strong men and women. It has dressed them, but as Thoreau has



LADS LEARNING PRACTICAL HORTICULTURE

told us: "It makes shoes, but it does not toughen the soles of the feet." It is not always conducive to the cultivation of the sterner virtues. It cannot impart moral stamina, fearlessness, "go." Outdoor life alone does not do this, but it offers a good environment for the development of all that is best and strongest in a man.

We cannot afford to overlook the moral side of physical development. Weak, flabby muscles very often go hand in hand with a general flabbiness of character. Sedentary occupation, unless relieved by periods of open-air activity, tends to emasculate men, to render them limp, feeble, invertebrate, in the presence of the stern realities of a business or professional life. Conversely, outdoor habits help to give firmness of texture to mind as well as muscles, and stay and stamina to the character. The young man who has determined, in Goethe's words,—

"In the whole, the good, and the true,
Resolutely to live,"

must spend some time regularly out-of-doors where he can take long, deep

breaths of life-giving oxygen, and harden his muscles with use. The sickly sentimentalism which destroys so many youths does not flourish in the open, wind-swept fields, but in ill-ventilated living-rooms, in crowded music-halls and variety houses, and in the unwholesome atmosphere of cheap novels. How it clears the mind of sickly fancies, doubt, and discouragement, to walk out in a stiff September wind. How much easier the perplexing problems of business and of every-day life can be solved when, after vigorous exercise, the blood tingles in every organ of the body, and the whole man is alive to his fingertips.

Verily Spencer was not far from right when he said "a good animal" forms the foundation for success in any walk of life. The man of outdoor instincts is on vantage ground in the struggle for existence. He usually has a strong grasp of essential truths, and can often by simple intuition arrive at results that others toil in vain to achieve. Such a one usually carries with him a breezy optimism which is instinct with life and feeling, and wonderfully attractive in the world of anxious, care-ridden toilers.

The outdoor man, too, has staying powers. He has not dissipated his energies in frivolous pleasures, but drawing freely from nature's storehouse, the great out-of-doors, has laid up a generous supply of nervous energy and physical endurance which can be relied upon in times of emergency. Therefore he is not so easily flurried, and he does not worry. Physical bankruptcy comes not to such a man, for he works with a good reserve on hand. He is the "man of cheerful yesterdays and calm to-morrows."

"STAY young, and you will never become a burden to anyone; neither will the industrial world 'lay you on the shelf' on account of years. Instead, your service will be in constant demand, and your recompense as much as your real worth."

From Our Correspondents

Eugenics

To the Editor of "Life and Health."

DEAR SIR,—In the April-May number of LIFE AND HEALTH appears an article, "Danger of Racial Deterioration," for which many of your readers who desire a happier world will thank you.

The subject treated, "Eugenics," is being brought before the public very forcibly by the papers quoting statistics of the alarming increase of insanity in English-speaking countries. The last figures printed for England and Wales gave an increase in eleven years of 25,000 entering the asylums. No account is taken of the relatives of these 25,000, who would surely be more or less afflicted. But these figures are enough to startle thoughtful people.

All who have been brought into close contact with this frightful curse of the human race recognise that *heredity* is the enemy we shall have to fight. We know that, as surely as the sun appears in the east and sets in the west, insanity breeds insanity. This is being done, not only among the wretchedly poor, but among the wealthy and educated classes. It is a well-known fact that, if there is hereditary insanity in a family, as a rule members of that family will do all in their power to hide this dread disease, so that their sons and daughters may marry and pass it on to another generation. The explanation of this is that those mentally afflicted do not look upon the disease with the same horror as a person who has a healthy mind. The lies told by families having a strain of insanity do not appear to strike them as not being the truth; and I have known even religious people state, when it was a question of the marriage of their offspring, the exact opposite of the truth. Is it, then, surprising, considering the marrying of blood relations and these families with hereditary insanity, that this frightful disease should be on the increase? Many of your readers will say, "Thank God, there is no insanity in my family, and our children are all mentally strong"—and that is indeed something to be thankful for. But these children will grow up, may not always have their parents to guide them, and with our happy-go-lucky way of marrying, they have an ever-increasing chance of marrying into a family where there is hereditary insanity, for the reasons given above; and then they will have a life of misery before them.

It appears to me that if two people are bound together for life in holy matrimony, the least the State could do for them would be to give them an assurance that there is no such awful disease as hereditary insanity on either side. It would be a step forward if applicants for marriage had to present a medical certificate of fitness, and the Registrar could warn them if there was insanity in either of their families.

In New Zealand there are two Eugenics Education Societies formed, in Dunedin and Wellington. When is Australia going to join in this reform for "good breeding"? Yours faithfully,

"Mens Sana."

June 13, 1911.

Picton, N. Z.

Chats with the Doctor

[Send questions for this department to the Medical Superintendent, Sydney Sanitarium, Wahroonga, N.S.W.]

22. Sand Baths or Salt Baths.—"I was much interested in an article on sand baths which appeared in the February-March issue of LIFE AND HEALTH. How often should this bath be taken? Would salt do in lieu of sand as we live inland?"

Ans.—Our correspondent will note from careful reading of the article mentioned that the writer, who is a physician, conducts a seaside practice where sea-sand is always available. It was no doubt this fact which suggested the sand bath to his mind. The resourceful man always finds ways and means of carrying on his work where he is. No doubt if the contributor of this article were placed where he could not obtain sand he would hit upon some other means of increasing skin activity and elimination. For example, if salt were available instead of sand, it would be found very useful for a similar purpose. The usual method of employing salt is to use a smaller quantity, and instead of using it dry after heating in the oven, the salt is moistened with hot water and the skin is then vigorously rubbed with the hot, damp salt. A part at a time is rubbed until well reddened, care being taken, however, not to scratch or injure the skin. This procedure is called the "salt-glow," because it leaves the body all aglow. The salt is usually washed off under a spray or shower; but where these are not available, a little cold water quickly poured over the body serves the same purpose. After the skin has been dried, it should be well rubbed with a little oil, as is recommended after the "sand glow," if we may be permitted so to call it.

23. Epilepsy in Childhood.—"Will you oblige me please by suggesting treatment for a girl eleven years of age who has suffered for two years from epilepsy?"

Ans.—Epilepsy, unfortunately, is year by year becoming more common, and unfortunately, too, it is a disease which is not often completely recovered from, though it generally improves under treatment. Observation of these cases brings to light the fact that epileptics as a rule over-eat and eat indigestible things. Obviously the first step in treatment is the careful regulation of diet and dietetic habits. This child should have but three meals a day of plain, simple, digestible food. This she should take in moderate amounts, and the food should be of such a nature as to encourage thorough mastication. She should not eat anything between meals, but should drink pure cold water quite freely an hour or two before meals. Meat in all its forms has been found to increase the number and severity of epileptic attacks. It is therefore always withheld or at any rate greatly restricted by medical attendants in these cases, even though they do not favour a vegetarian diet for others. Tea should also be withheld, as it is decidedly irritating to the nervous system. This child should also live the outdoor life, as exercise in the open air lengthens the intervals between attacks, and also lessens their severity. She would likely be best out of school, as she should be free from the restraint, inactivity, and irritation which only too frequently result from compulsory performance of fixed mental tasks. She ought not, on the other hand, to be free from useful employment which will bring into operation all the powers of mind as well as body. She should be taught to care for plants, to take an interest in animals, to do light housework and sewing. This work should always be planned in such a way that it will be done willingly and in a play spirit, rather than because of compulsion. She should be kept free from all sources of bodily irritation. A thorough medical examination will reveal whether there be disease in any part. Baths should

be regularly taken, clothing comfortable, and evenly distributed, and general surroundings hygienic.

24. Consequences and Treatment of Intestinal Intoxication.—"What are some of the results of fermentation of food in the intestines, and what treatment do you advise for one who suffers from poisoning due to such fermentation?"

Ans.—Intestinal fermentations and putrefactions give rise to poisonous products which locally irritate the bowel and pave the way for catarrhal conditions and inflammations of the bowel, appendicitis and diseases of the liver and bile-ducts including gallstones. Such fermentations also result in the production of gases and acids which distend and irritate the stomach and bowels, so causing colic, palpitation, and numerous other uncomfortable sensations. As poisons from the bowel are absorbed they pollute the blood and irritate the kidneys and skin so producing Bright's and other diseases, eczema and various skin eruptions. The arteries are also irritated and either softened or hardened and thickened. Poisons present in the circulating blood, act upon the brain and nerves so causing headaches, neuralgic and neuritic pains, irritability and depression, and often drowsiness and sleeplessness in turn. Thus we may say that some of the diseases which may be traced to intestinal intoxication are neurasthenia, migraine, neuralgia, neuritis, nephritis, anæmia, diabetes, arterial sclerosis, gallstones, catarrhal jaundice, and other diseases of the liver.

Of the measures used to combat intestinal intoxication three are of paramount importance. The first consists in the elimination of food-stuffs which promote fermentations, namely: meat and meat products of all sorts and all other high-protein foods and foods rich in putrefactive microbes. The second measure consists in the prevention of constipation or stasis of food wastes in the intestine. And the third useful measure lies in part in the substitution of antitoxic foods

such as fruits, vegetables and farinaceous substances for the putrefactive articles withheld; and in part in the addition to the diet of antagonistic lactic-acid ferments. This latter part of the treatment is most important and is easily carried out by the taking daily of a pint or more of scientifically soured milk. The plan of campaign consists in fighting poison-producing germs with germs which are not only harmless but beneficial. Lactic acid is a good disinfectant, and the introduction of large numbers of acid-producing microbes insures the liberation of this disinfectant at the point where it is needed.

25. Milk for Typhoid Patients.—"Seeing that gastric juice brings milk into a solid state and the digestion then proceeds as with other solids, why is it so largely prescribed for typhoid fever patients? Under such treatment is it possible to starve the bacteria out of the system?"

Ans.—It is no doubt true that gastric juice quickly curdles and solidifies undiluted milk when this is taken as a drink. It is likewise true that the curds so formed must be digested as are other solid foods, and that if considerable quantities of milk are given to the typhoid fever patient some of these curds are practically certain to remain undigested and so to irritate the ulcerated intestine. On the other hand it is equally certain that milk may be given in such forms that these untoward effects do not result. When milk is prepared as for an infant by mixing with plain water, lime water or cereal waters, the formation of large curds is prevented; so also when milk is given in a soured or curdled condition. The curds of milk which has been soured by the addition of Lactone, buttermilk, or other similar tablets, are soft, small curds which could do no possible harm to the ulcerated bowel of the typhoid patient. Not only so, but the lactic-acid germs which are present in large numbers in such sour milk exert a beneficial action. We do not, however, believe that enteric patients should be fed exclusively on

milk, as such a diet is monotonous and unnecessary. Other foods which may be given with excellent results are strained juices, vegetable broths, fruit and vegetable purées and dextrinised cereal gruels. As to "starving the bacteria out of the system," this is not possible by means of milk or any other diet though soured milk and fruit juices tend to disinfect the bowels by destroying the colon bacillus and other putrefactive microbes.

26. Diseased Cavities of the Face.—"I have consulted a specialist who tells me I am suffering from disease of the cavities of the face. My age is now thirty-three, and I have been under treatment since nineteen. Polypi have been removed many times and other operations performed, including the removal of portions of the turbinal bones. The disease has extended to the cheeks and forehead, and my condition of health is much impaired. I am told that I now require further operations, but I am anxious to find some other means of obtaining relief. Headaches and shooting pains in the eye-balls, temples and cheeks are at present very severe; there is also considerable discharge from the nose into the throat. I am using Nasal Balm Ointment, which relieves me a little, but I cannot but feel very disheartened at the thought of becoming a chronic invalid."

Ans.—Your condition is indeed serious. Abscesses have probably formed in the bony cavities of the face and head, and these must of course be cleared out. The polypi should also be removed. Your general condition of health is, however, so bad that attention should be given to this at the outset. A course of dieting, exercising, bathing, massage and electrical treatment under medical supervision would do much toward assisting the body to free itself from germs and pus which cannot be reached by the surgeon. Indeed the surgeon's work may prove a failure unless the general health be built up. I would therefore suggest that you spend three months in a well-equipped sanitarium where the general treatment

required could be obtained. At the same time conservative surgical treatment could be carried out as required, and as your strength would permit.

In the way of home treatment, you should derive benefit from the application of hot and cold compresses to the face and forehead. These compresses should be large enough to completely cover the forehead, eyes, and face down to the mouth, and at the sides should extend well over the ears. First apply a compress wrung from water as hot as can be borne; immediately follow this by a compress wrung from ice water. The duration of the hot application should be from one to two minutes, of the cold from one-half to one minute. Repeat these applications eight or ten times, finishing the treatment with a dash of cold water to the face and forehead. The nose should be thoroughly cleansed with warm salt water, one teaspoonful of salt to a pint of water. The best antiseptic to add to this is tincture of iodine in the proportion of one teaspoonful to a quart of salt water. Thoroughly wash the nose and throat with this solution two or three times a day. This treatment is still more effective if two quarts of solution are prepared, one hot and the other cold, and these used in alternation. Finish the treatment with the cold solution, and afterwards apply inside the nostrils a little plain or mentholated vaseline. E.V.C.

27. Cough; Rheumatic Joints; The Average Length of Human Life.—"What would be the cause of a troublesome morning cough without expectoration, in a young woman of twenty who leads an active outdoor life?"

Ans.—While a cough is always looked upon with suspicion because of its connection with tuberculosis of the lungs, we believe in the case referred to the cough is entirely due to some irritation of the nose or throat. The source of such irritation may be some nasal or post-nasal spur, growth, thickening or other abnormality. It may be elongation of the soft palate, or the irritation may be

due to catarrhal inflammation of the nose, throat or middle ear. The patient should be thoroughly examined in order that the source of irritation may be discovered and removed.

2. "Should rheumatic joints that are swollen be rubbed, and should bathing with hot water or cold be used? Also for a rheumatic person is flannel or cotton underclothing best?"

Ans.—Whether or not rheumatic joints be rubbed depends upon the condition and stage of the disease. During the stage of inflammation, which is evidenced by swelling and tenderness of the joints, massage if employed at all must be used with the greatest discretion. The inflamed joint itself should not be rubbed, but the limb above and below the joint may be very gently massaged.

As the inflammation subsides, the rubbing movements may approach the joint until the joint itself may be massaged and moved with little or no pain. Massage in rheumatic conditions is most useful during the sub-acute and chronic stages. As to hot and cold bathing, this may be with benefit employed during all stages but the most acute, when it would prove too stimulating. In the case of stiff, swollen joints applications of alternate hot and

cold water are most useful. The clothing of the rheumatic patient should be such as to allow free skin-action. The most suitable material for underclothing is loosely-woven cotton or linen. Over this, flannel may be worn when required for warmth. Closely-woven flannel undergarments render the skin hyper-sensitive and inactive; hence, are conducive to colds, chills, and acute exacerbations of the disease.

3. "Is the average duration of human life greater or less than fifty years ago?"

Ans.—Statistics appear to indicate that the average duration of human life is greater now than fifty years ago. Close investigation, however, leads one to a different conclusion. Such investigation reveals the fact that the increased average of human life is due to the conservation of the sick and feeble who fifty years ago became victims of epidemics of disease. That the great majority of men and women die younger than fifty years ago is a matter of common observation. One has only to read the inscriptions on the tombstones of any old country churchyard to be convinced that more men and women passed the Psalmist's three score years and ten a half century ago than at present.

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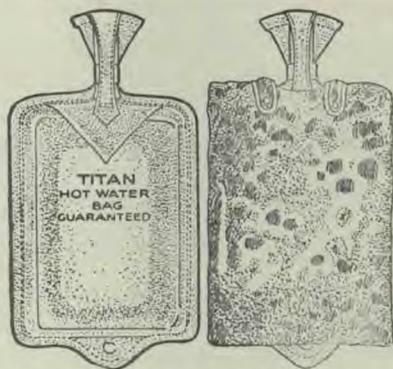
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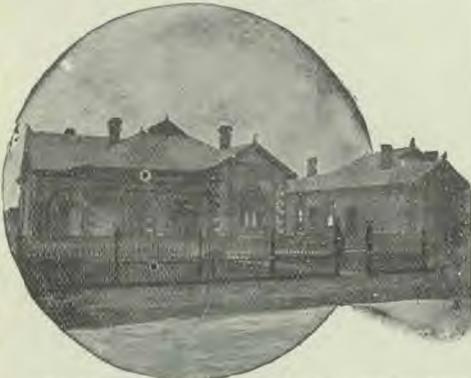
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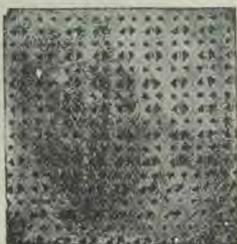
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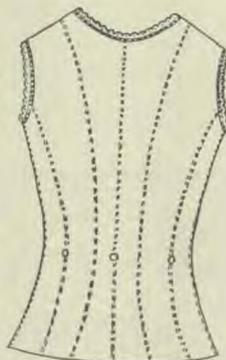
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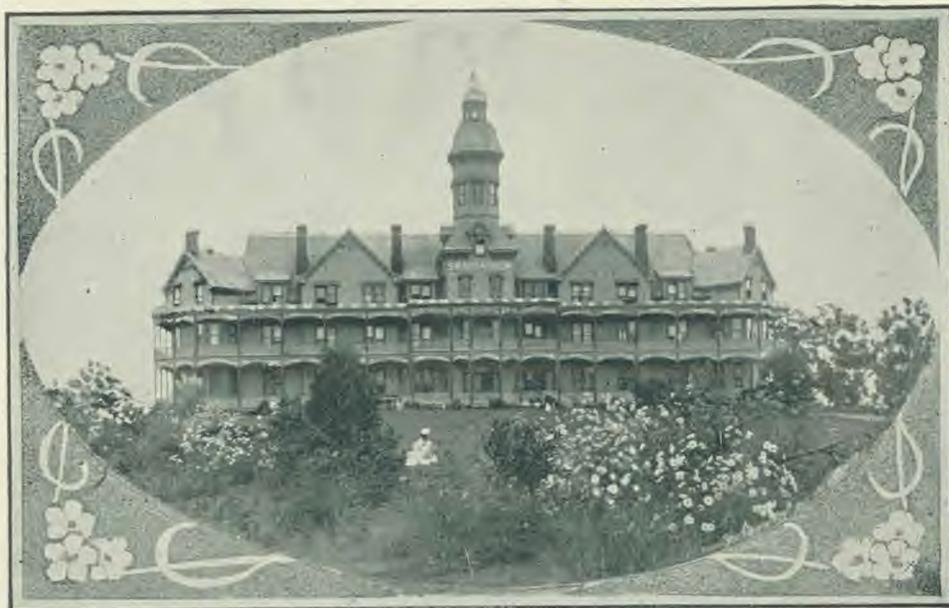
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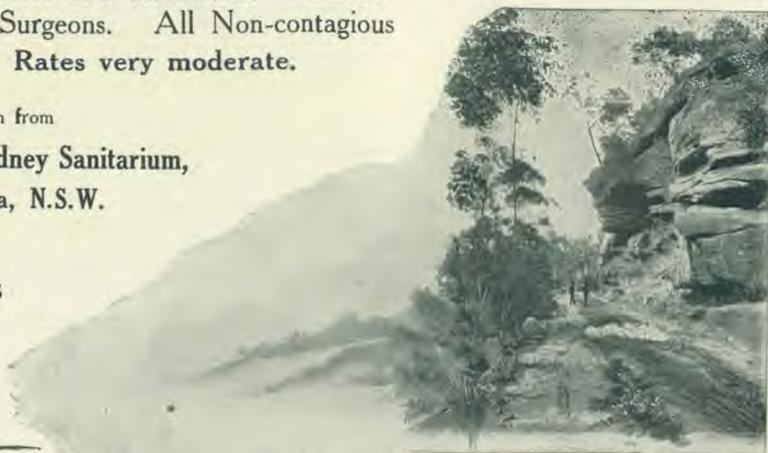
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