Herald of Health

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A Few Facts About Enteric Fever

BY CHARLES HENRY HAYTON, B. A., M. D.

TYPHOID or Enteric fever is a very broadly distributed disease. No country or city in the world is entirely free from it. It is quite prevalent in India and China, and in most large cities on the Continent. It is a disease of the cities. In America it is found from Maine to California, and some of the large cities are never free from it.

The prevalence of typhoid fever in these places is due to the insanitary conditions existing. The more insanitary the surroundings the more prevalent the typhoid. Faulty sewerage, infected milk, water, food, and swarms of the common house fly, are the chief factors in its spread.

In England and Wales, during the ten years from 1871-80. 421 deaths occurred from this disease. In the three years from 1909-11 6,447 deaths were attributed to the same cause. A number far too large in a country were the local sanitary inspectors realize the importance of having thorough cleanliness, a pure water supply, and a perfect system of sewerage.

Typhoid fever seems much more prevalent during the autumn months than at any other time of the year; hence before its true character was known it was called autumnal fever. It is essentially a disease of youth and early adult age. Robust young people on the verge of manhood and womanhood are the most likely victims. Infants are seldom attacked, and still less elderly people. For this reason of all infectious diseases typhoid fever is the most to be dreaded.

The Bacillus of Typhoid.

The typhoid bacillus is a thick, short, rod-shaped germ, with rounded ends. It has numerous fine long hairs attached to its body called flagella. By means of these flagella it is enabled to propel itself along, which it does with great rapidity. Most of the rod-shaped germs do not move.

The bacillus enters the system by means of contaminated foods, milk, or water. It is thus absorbed into the bloodstream, where it multiplies and throws off poisons or toxins.

It generally takes from ten to twenty days for the bacilli to become numerous enough to produce symptoms. Every organ and tissue of the body is affected, but especially the lymphoid tissue. Patches of this tissue are found scattered throughout the small intestines, which are called Pyers patches. Patches are also found in the large intestine called the solitary glands. These small isolated patches of lymphoid tissue become citadels for the typhoid bacilli. When the glands break down, as they do in the second or third week of the disease, millions of the bacilli are thrown into the intestines and mix with the stools. The fæces and urine of typhoid fever patients are dangerous and can infect the attendant. These excretions must be thoroughly disinfected before being thrown

out, as they constitute one of the chief sources of contamination.

Avenues of Contagion.

"Fingers, food, and flies," as Osler says, are the the chief sources of danger. Transmission through the air is unlikely, although there is a possibility of the typhoid bacillus clinging to the dust particles and being inhaled into the system.

The fingers are common sources of contagion. Touching the food of a typhoid fever patient; eating with his food utensils, coming in contact with his bed and bedding, are all dangerous procedures. The germs cling to the skin and find lodging under the fingernails, and when food is eaten without thoroughly washing and disinfecting the hands, the germs find their way into the system. On general principles it is a good habit for all to form, whether attending the sick or not, to wash the hands many times during the day; one never knows the many germs one picks up with the fingers during the routine of the day's labour.

The food one eats is a common source of infection. Water and milk especially are notorious for starting numerous and fatal epidemics. Wells, cisterns, streams, and reservoirs very easily become contaminated. The water then being used for drinking purposes, or in washing the food utensils, quickly infects the user and an epidemic starts. Not only by using infected vessels, but also by diluting milk with the contaminated water, is danger incurred. If the least suspicion attaches to the water it should be thoroughly boiled before using.

Ice, salads, uncooked vegetables as celery and lettuce, are known to carry the germ. Also oysters, clams, mussels, and even table butter, have all been found to contain large numbers of the typhoid bacillus. It is very evident from the many sources of infection in our food one has to exercise considerable care in the selection. A regular life, carefulness in diet, absence of worry, and temperance in all things, is the best individual protection against the many sources of danger from typhoid. By this means the resistance to infection can be increased; and the lower forms of life can be the more easily destroyed. In other words, by a careful, well-regulated life, a certain degree of immunity, not only against typhoid fever but against every infectious disease, can be set up.

The Bacillus Carrier.

Another source of infection that has only recently been considered a serious factor in the spread of typhoid is the bacillus carrier. By this term is meant a patient who, having had the disease and having recovered, still continues to emit large numbers of the germs through his urine and fæces. These excretions are sources of great danger and constantly spread infection. A case of this nature was only recently discovered and taken to the hospital for further treatment. The history showed that this man was a coachman who had contracted the disease in 1908. After his discharge from the hospital he worked at various places in his usual capacity. In June, 1912, in an outbreak of tyhoid he was suspected and his urine and fæces examined. These were found to contain large numbers of the typhoid bacillus. His past history was further investigated and it was discovered that at each place he was employed typhoid had broken out until, from the period of his discharge from the hospital till he was isolated, twenty-eight people had been infected and no less than four had died. He was continually discharging a virulent type of typhoid bacil lus.

The danger from this source has become so alarming that a prize of £500 has been offered in Germany to the person of any nationality who can discover a means by which typhoid bacillus carriers can be freed from the germs and their stools and urine remain free for at least half a year or longer after treatment.

Summary.

1. Typhoid fever is a disease to be dread-

ed because it carries off the youth and early adults.

2. The chief avenues of infection are foods, water, milk, flies, and the bacilli carrier.

3. The fingers are the conveyers of infection; therefore the hands should be washed often in disinfectants.

4. A well regulated life, carefulness in diet, and temperance in all things, is the best individual protection against typhoid.

Appendicitis

BY ALFRED B. OLSEN, M. D., D. P. H.

AT the beginning of the large bowel and just below its connection with the small bowel is a small slender body about three inches in length which, on account of its resemblance to a worm, is called the *vermiform appendix*. Appendicitis is an inflammation of this appendix. There are several varieties: first, catarrhal, which is perhaps often a very mild form of inflammation but may be also very severe at times; second, ulcerative, when ulcers occur; and third, where there is a marked breaking down of tissue and not infrequently gangrene.

The Causes of Appendicitis.

For reasons that are not very well understood males suffer more frequently with appendicitis than females, and, although it may occur any time in life, the favourable age in either case is from fifteen to thirty years. Catarrh of the bowel is generally regarded as one of the important predisposing causes; and undoubtedly constipation, which so frequently accompanies catarrh, is an important contributing factor. Exposure which might lead to chill of the bowels, and injuries of various kinds must also be regarded as causal factors in the production of appendicitis.

But perhaps the most important causes have to do with certain errors regarding both diet and drink, which are exceedingly common in the land. There can be but little doubt that appendicitis is a germ infection of some sort, and pus microbes, that is, germs which produce pus or matter, are probably the exciting cause in most attacks. Even under favourable circumstances a certain amount of fermentation, deday, or putrefaction, takes place in the contents of the bowels, and gives rise to the formation of foul gases and poisonous matter. Such putrefaction is more pronounced and also of a more dangerous type when it is associated with certain articles of diet, and particularly those which come from the animal kingdom. Persons who wish to control this decomposition process, should as far as possible avoid flesh foods and partake largely of fruits, the mild acids of which discourage the activities of the germs, and the consequent putrefaction of the food. It is a notable fact that those who follow a plain, but wholesome and nourishing fruitarian diet have far less offensive bowel discharges than meat eaters.

While it would not be correct to say that vegetarians are immune from appendicitis, still we have good reason to believe that they are far less liable to an attack than the average flesh eater.

Symptoms.

Although the symptoms of appendicitis sometimes resemble those of typhoid fever or even gall-stone or renal colic, still, as a rule, they are characteristic, and not easily confused with other disorders. The attack is sudden, and there is a pain which seems to come from that part of the abdomen which lies about midway between the navel and the uppermost point of the right pelvic bone. This same area is also tender and sore, and often rigid as well. There is a mild fever with a temperature of from 100° to 103° Fahr. A swelling may be noticeable at the seat of the pain and tenderness, or it may be developed later. When the pain is great the

patient lies with the right knee drawn up. There is also a loss of appetite with a feeling of nausea or sickness, oftentimes vomiting, and the bowels are usually constipated.

The Treatment.

At the first sign of appendicitis the wisest course is to send at once for the family physician and submit the case for his examination. Appendicitis, which has an average death rate of about fourteen or fifteen per cent, is not a disease to be trifled with, and the sooner it is handled in a skilful fashion the better the chances are for recovery. Of course the patient should be promptly put to bed and absolute rest enjoined. Enemata for the purpose of clearing the bowels are in order, and should be repeated as often as necessary. It is safe to apply hot fomentations or hot packs to relieve the pain. Cold compresses and cold packs are also useful for the same purpose, and may alternate with the fomentations. All hot applications are in order. It is a wise plan to give the patient plenty of water to drink, and especially hot water.

The diet will necessarily be of a fluid nature. Pure milk, which should be sterilized if necessary, and thin milk drinks and gruels, barley water, rice water, albumen water and similar preparations are all in order. We would also recommend fruit juices and unfermented grape wines. The latter are exceedingly wholesome and nourishing, and rarely fail to benefit patients. Fruit juices possess additional advantage in that they exert a mild laxative influence, and thus assist materially in regulating the bowels. Milk and milk preparations, on the other hand, are constipating as a rule. Metchnikoff soured milk, however, is an exception, and is believed to be a mild laxative like the fruit juices. When properly prepared in a scientific way it must be regarded as a wholesome food for patients suffering from appendicitis.

Surgical Interference

It is impossible to lay down any fixed rule with regard to calling in the surgeon and submitting to an operation. Each case must be decided upon its own merits. If the attack is very sharp it is usually wisest to submit to an operation at once. This is emphatically true when the treatment carried out does not promptly bring relief to the patient and give evidence of improvement. In mild cases, however, it is rarely necessary to resort to the knife, but should the patient suffer from repeated attacks at varying intervals it sometimes becomes desirable to have an operation so as to put an end to these attacks. Naturally the most favourable time to operate is between attacks when the patient is in good condition, and the inflammation in the region of the appendix has subsided. Under these conditions the danger from the operation is very slight indeed, and the vast majority make a prompt and successful recovery, and are no longer subject to appendicitis.

Preventive Measures

It is rather difficult to give explicit directions with regard to the prevention of appendicitis seeing that we know so little about the direct exciting causes. As we have already intimated the diet appears to be a most important matter. If people would learn to chew their food well, avoid taking too large a variety at the same meal, and also avoid the more complicated dishes as well as all preserved meats, fish, and similar preparations, we believe there would be far less appendicitis. Shellfish of various kinds are scarcely fit for human consumption, and not infrequently bring trouble of one kind or another. Potted-meats, veal, and pork pies and similar concoctions as well as tinned fish usually contain some form of preservative. There are authorities who believe that these preservatives have a distinct tendency to provoke appendicitis, but even though this be not the case, they are unwholesome, and should be avoided.

The sharp chippings from cheap, enamelled kitchen ware are believed to cause mischief, and should be carefully avoided. We wel-

come the new aluminium utensils which appear to be superior to enamelled ware, and we hope the prices will soon be reduced sufficiently to put them within the reach of every home.

The old-fashioned idea that grape seeds and similar articles cause appendicitis has been exploded. We believe there are but very few cases which have been proved definitely to have been caused in such a way.

Another rather important consideration is the condition of the bowels. Those who are subject to constipation would do well to give careful attention to diet for the purpose of regulating the bowels and securing a daily movement. The gathering of waste matter in the bowels is of itself a very harmful thing, for some of these wastes, which are more or less poisonous, get absorbed into the system, and thus cause a certain amount of autointoxication or self-poisoning. We believe that a great deal can be done in the way of preventing appendicitis by keeping the bowels in an active, healthy state.

How to Escape from the White Plague

ALFRED B. OLSEN, M. D., B. Sc., D. P. H.

TUBERCULOSIS, or "The Great White Plague of the North," as Oliver Wendell Holmes so aptly called it, is preeminently a disease of civilization, of confinement, if you please. Tame the savage of the forest, confine him to the houses of modern civilization, and he very speedily becomes exceptionally susceptible to tubercular infection, and often a victim of the disease. The lot of the North American Indians who are now rapidly disappearing is a striking illustration. Domesticate the beasts of the field, and they, too, become peculiarly susceptible to tubercular disease. Cage the wild birds of the air and subject them to the vitiated atmosphere of the average home, and they show the same susceptibility. There can be no question but that the close life of partial imprisonment in cages, which we call houses, of itself renders the human being more susceptible to the white plague, and aids ma terially in multiplying its ravages.

Contrast for a moment the healthy, active open-air life of the patriarchs of old, of Abraham, Isaac, and Jacob, who, having no fixed abode, dwelt in tents, and moved about from place to place as the feeding of their flocks required. Small wonder that these hardy herdsmen and tillers of the soil were long-lived. Surely theirs was a more sane and more wholesome life than that of the average townsman, who only too frequently is obliged to pass his days in the foul air of more or less crowded and badly lighted offices in the city, and his nights in bedrooms where windows are more often closed than open. Man is emphatically a fresh-air animal, and he thrives best when living in contact with the clean, pure air of the countryside, for, as Cowper so beautifully puts it, "God made the country, and man made the town."

Before dealing with the preventive measures by which tuberculosis can be warded off and kept at bay, it is desirable to take a brief glance at some of the more important causes, both predisposing and exciting which are likely to bring on an attack of tuberculosis. These causes, small and large, are almost innumerable, and have to do with practically every detail of our daily life. According to G. A. Heron, M. D., F. R. C. S., senior physician to the City of London Hospital for Chest Diseases, "the human race is predisposed to infection by certain diseases, and among these is tuberculosis. These diseases are caused by living infections which having gained access to our bodies often find there all they need to enable them to do their work of infection. In this sense it is true that mankind is predisposed to infective diseases, and of these tuberculosis is the most fatal.

It seems certain that this predisposition to disease is stronger in some persons than in others; but this appears to be nothing more than an example of the law which establishes the fact that while, on broad lines, men resemble one another, in details one may differ widely from another.

The rôle of heredity is an important one, not so much on account of "specific heredity of tuberculosis," which Prof. A. Calmette, of Lille, says is an "execrable doctrine," but because of certain physical weaknesses and tendencies to which the children of tubercular parents are liable.

Anything that interferes with the natural functions of the body, which lowers the vitality or lessens the physical resistive forces, must be regarded as a predisposing cause, not only in opening the door to tuberculosis, but also to other more or less similar infections. Any disease, such as pleurisy, bronchitis, or pneumonia, which attacks the chest, paves the way for the bacillus of tuberculosis and renders such individuals afterward far more susceptible to infection.

Milk and various milk foods, including cream, butter, and cheese, which are derived from tuberculosis cattle become a most serious means of transmitting the disease. The same is true of the flesh of most domestic animals, all of which are more or less prone to tubercular disease. Too much stress can not be laid upon the importance of a pure milk supply. Milk which is not known positively to be derived from healthy cattle should always be sterilized before using. This is particularly important in the feeding of children, as the little ones of tender years have less power of resistance, and consequently are far more susceptible.

One of the most important of all predisposing causes is undoubtedlythe breathing of foul air in an overcrowded room. The influence of such conditions is strikingly put in the following words by Dr. Woods Hutchinson: "It is, of course, and has been for half a century, a commonplace of vital statistics that the death-rate from tuberculosis varies precisely with the social position of the individual, falling most lightly upon the highest and wealthiest classes and most heavily upon the lowest and poorest. In this sense consumption is the price of civilization, and, as usual, is paid by the lower two thirds for the benefit of the upper third. A typical statement is that of Korosi, that of the inhabitants of Budapest there die of consumption of each 10,000 well-to-do persons, 40; of the moderately well-to-do, 62.7; of the poor, 77.7; and of paupers, 97."

Then there are certain trades with which is associated a great quantity of dust of a more or less dangerous nature. The labourers engaged in these trades, such as cutlers, filemakers, printers, tin miners, and lead miners, appear to be particularly susceptible.

We can only mention the vast importance which alcohol plays as a factor in producing tuberculosis. Alcohol in any form, mild or strong, is a protoplasmic poison, and its immediate effect upon the body is to lessen its natural resistive powers and to reduce vitality. Thus alcoholism favours the invasion of infectious disorders generally, and none more than tuberculosis.

Not infrequently the use of alcoholic beverages is associated with insufficient food; for money which should be spent in the provision of nourishing food, is wasted on drink, and the poor victim suffers a double affliction. His body is poisoned by the alcohol, and the natural sense of hunger which he ought to possess is deadened, and he is in a state of semistarvation, which renders him readily susceptible to the germs of consumption. Insufficient feeding must be regarded as an important predisposing cause, and the same is largely true of insufficient clothing.

In 1882 the late Dr. Robert Koch, of Berlin, made his brilliant discovery of the specific germ which is always associated with tubercular disease. The presence of the tubercle bacillus explains the highly

infectious nature of consumption, and the reason why it spreads from man to man as well as from beast to beast. The first question put before the Royal Commission on Tuberculosis, which was appointed in 1901 and which recently made its final report, was, "Is the disease in animals and man one and the same?" Their answer, summed up in a few words, is as follows: "The commissioners therefore regard these two types as varieties of the same bacillus. . . . There can be no question, therefore, that human tuberculosis is in part identical with the bovine."

The second question was, "Can animals and man be reciprocally infected with it?" The careful and extensive experiments which they carried out led the royal commissioners to conclude that animals and man *can be reciprocally infected* with the disease.

These conclusions are of the gravest importance, and we wish they could be speedily placed before all the citizens of our land, and in such a form as to be readily comprehended by all classes of society.

Tuberculosis is a highly infectious disease found in all lands, whether in the tropics or in the arctic regions, and attacks all classes of society, although it is especially associated with squalor, poverty, and strong drink. All ages, too, are susceptible to tuberculosis, from the babe in the mother's arms to the aged man who is leaning on his staff. Children are particularly susceptible and we have good reason to believe that the seed of tuberculosis is often sown in childhood, even though it does not actually develop until a later period of life.

The terrible ravages and havoc which the tuberculous disease produces in the body are by no means confined to the lungs. All organs and tissues of the body are susceptible in a varying degree. Tuberculosis of the lungs is known as consumption. When the skin is the seat of the disorder, we call it lupus; when the glands of the neck or other parts of the body are enlarged on account of the presence of tubercle bacilli, the condition used to be called scrofula or the king's evil.

In calling attention to the wide extent of the disease and the gravity of the problem of dealing with it, we can do no better than quote from the admirable speech which Mr. Lloyd George made last May when introducing his National Insurance Bill, as follows:—

"We propose to do something to deal with the terrible scourge of consumption. There are, I believe, in this country about four or five hundred thousand persons suffering from tuberculous disease. From the friendly societies' point of view it is a very serious item because of the dragging length of the illness. In the Foresters' Society the average illness of a consumptive patient lasts fifty-eight weeks, and out of the total sick-pay of that society about twenty-five per cent is due to tuberculosis. There are seventy-five thousand deaths a year in Great Britain and Ireland from tuberculosis. A much more serious fact is that, if you take the ages between fourteen and fifty-five among males, you find that one out of three dies of tuberculosis; and these are the ages which should be those of strength, vigour, and service. It kills as many in this kingdom in one year as all the zymotic diseases together; a terrible fact in connection with it is that the moment a man is attacked and conquered by it he becomes a recruit of a destructive army, a serious danger to those to whom he is most attached, a scatterer of infection and death in his own household. Seventy-five thousand deaths a year! There are forty-three countries and towns in Great Britain and Ireland with a population each of seventy-five thousand." He continues somewhat as follows: If this year one of these places of seventy-five thousand inhabitants were devastated by plague, every man, woman, and child being destroyed, and the place left desolate; and if the same thing happened to another seventy-five thousand population the next year, I do not think we should wait longer. All the resources of the country would be placed

at the disposal of science to crush out the evil. But that is just what tuberculosis does every year, only its victims are scattered. I do not say that we can eradicate the evil. Doctors think they can; they are confident they can; and the men who have devoted a great deal of attention to the subject are the most confident of all. Those engaged in experiments are full of bright hope that they can stamp it out, but they can only do it with help, and I purpose to ask the House to help them.

Knowing the direct exciting causes of tuberculosis, we also know the means of preventing it by taking certain necessary precautions, so as to avoid contamination with the specific microbe. We have seen during the the last twenty or thirty years a very marked reduction in the loss of life by typhoid fever wherever due care has been taken with regard to the purity of the water and food supplies. But the problem of dealing with tuberculosis is a much greater one, and much more difficult than that of typhoid fever. In the past, although the efforts at prevention have been comparatively meagre, feeble, and more or less haphazard, still they have brought gratifying results. According to the registrar-general in the year 1910, 3,437 males and 2,118 females (a total of 5,555) died from phthisis in London. This means a death-rate percentage of 1.14 per 1,000 living, which is 24 lower than the average for preceding five years. Dr. Niven reports from Manchester that the death rate there last year was the lowest ever recorded. In Edinburgh the percentage for 1910 was .97 per 1,000; Glasgow, 1.21; Belfast 2.11; and Dublin 2.34 in all cases the lowest on record. Fortunately we can compare these rates with foreign cities for the same year: Copenhagen, 1.14; Hamburg, 1.26; Berlin, 1.76; Vienna 2.49; Moscow, 2.50; St. Petersburg, 2.90; Paris, 3.66; Rio de Janeiro, 3.96; and New York, 1.81.

It is interesting to note the improvement in the death-rate from tuberculosis in Melbourne, a city of about 100,000. In the years 1891-95 the average was 2.7 per 1,000 of living inhabitants. During 1906-10 this death-rate was reduced to 1.3 per 1,000, and the figure for 1910 is still lower, being 1.1 per 1,000. According to the medical officer, from whom we have obtained these figures, these satisfactory results are, in the opinion of Dr. James Jamieson, medical officer of health for Melbourne, largely explained as follows:—

"The higher standard of living and the improvements which are included in the general term of sanitary measures must be credited with a large share of the success that has attended the labours of sanitary administrators. In Melbourne, for example, during the past quarter of a century thirty-five hundred dwellings have been condemned as unfit for human habitation."

But the results which have been obtained by Lady Arberdeen and her fellow workers in the Women's National Health Association, of Ireland, in combating tuberculosis are perhaps the most striking and most encouraging of all. This association was only organized in 1907. Concerning the diminution of tuberculous disease, Sir William J. Thompson writes: "It is gratifying to observe that within the past three years the number of deaths in Ireland from all forms of tuberculosis has been reduced by about one seventh (1,663), and that the rate of mortality per 1,000 living has fallen from 2.7 to 2.3." This is a fine example of what voluntary health societies can accomplish.

Where to Begin Conserving

L. S. MARDEM.

CONSERVATION has become the theme of the wise men (and women) of this time, and little surprise is occasioned, for we see on all sides strenuous efforts to make "ends meet"; and in the consideration the source and supply questions are getting more attention.

Lawmakers are seriously considering measures toward the conservation of natural resources, and scientists are going deeply into the matter of the conservation of the race.

That God planned the best system of conservation for man, physical and spiritual, has lost its connection in the scheme, as man looks at it; hence the question, *How* shall we conserve?

As far as the race of mankind can be linked with the scheme of conservation, we must go back to the children of men, and cultivate their physical, moral and spiritual nature, looking to full conservation when they will bear the image of their Creator, as did the first man created, whose Author pronounced the work of his hand "very good." Statistics on every hand show heavy mortality of young life, and one can not wonder at this, when close observation into causes show ignorance of natural law and indifference toward remedy, a combination which can not be beaten in affecting race suicide.

Let our lawmakers be encouraged in their efforts toward conservation of natural resources, but parents should consider, in the fear of God (who tells us that children are his inheritance), *how* these little ones are invited into their homes. God may be consistently asked to add his blessing to proper conditions. But God is not always thought of in this matter by parents, and the necessity of institutions in all our large cities for the artificial fostering of infants is self-evident.

Foundings left on door-steps, deserted wives, and deceived girls tax these institutions heavily; and while the old world rolls around on its axis, with its cup of iniquity fast filling, we may expect these conditions to prevail, if not increase.

St. Margaret's home, of Albany, N. Y., may be cited as a model institution of this character, and its history should inspire other cities and charity organizations to follow its example.

Thirty years ago a motherless little one needed care, and the women of All Saints' Cathedral found a home for it. Other cases called for greater effort, and God, blessing their working faith, gave them the needed "things" which he has promised to those who seek righteousness, and from that day of Christian endeavour to do good to the least of his children, St. Margaret's has grown into the well-equipped institution it is.

Bishop Doane has used his large influence in the upbuilding and maintenance of the institution, and though started under the auspices of the Protestant Episcopal Church of the diocese of Albany, its board of managers claim representation from all denominations and creeds, making it non-sectarian in administration.

To Dr. Henry L. K. Shaw, the well-known infant specialist, is due the high standard of the institution and the confidence of the medical profession.

The call for nurses from this institution can not be supplied, which shows that trained infants' nurses are meeting a large demand every day.

That the course is finished after eight months' training ought to recommend itself as a profession to a large number of young women of good education.

One important feature at St. Margaret's is the "mothering" element in the care of the babies, who can not have their natural mothers while there. Nurses and superintendents seem to give most naturally of their best in order properly to mother the little

ones in their care, and it is the belief of the superintendent that this natural element has assisted in the recovery of some of the most desperately and hopelessly afflicted babies.

That God is glorified in these "good works" should inspire many others to "let their light so shine," to the glory of our Father who is in heaven.

The Hope of the Nerve-Stricken

THERE is a word of hope to be spoken, for one and a very pitiable class, the middle-aged who have lost or forfeited their birthright of equable balance, and find themselves spent and facing a future which can never be wholly free from suffering. Even for them a firm exercise of will power may make all the difference between high success and disastrous failure.

In no other way can I make this so clear as by giving two vividly contrasting instances within the circle of my own acquaintance, the one of a man who lost himself, the other of a woman who found herself. For years I have followed the two careers, so like in apparent predestination to ruin, so diverse in actual development; and I outline them here as object lessons, the one for the unwary, the other for the unhopeful.

At forty the man found himself at the head of a vast manufacturing business. Great expenditure of energy had gone to the building of his success. It had cost him much in nerve wear. But he was by no means bankrupt in this department. Physically he was sound. He was a total abstainer from liquor and tobacco, and a temperate eater. One quality, however, had grown monstrous within him, egotism. Success had fed it. When necessity ceased to drive him at top speed his egotism took its place as "speeder up." It became a species of nervous obsession. He could not bear to let his partners or heads of departments do their own work without constant interference more wearing upon him, even, than upon them. Inevitably his overspurred nervous organization began to sag. He suffered what the French call *crises des nerfs*. Sometimes he would become almost hysterical, indulging himself in violent moods without making any effort of the will to control himself. Again he would disappear from his factory for days, and it would become known that he had lapsed into a condition of flaccid repose, with melancholic intervals. Every school of medicine had its shot at his target: allopaths, homeopaths, osteopaths, chiropractors, mind healers and quack nerve builders.

Finally, and most unfortunately, he ended in the hands of a physician whose vogue is gained by pampering his rich and fashionable patients. Under this man's malign influence the manufacturer was persistently encouraged to consider himself a martyr to "delicate nerves."

He ceased bestowing upon himself any effort other than that of self-pity, and is today the retired head of a failing business, the tyrant of a slavish household, and himself the slave of tyrant nerves, which, only a few years ago, could have been mastered and controlled by a realization of his own suicidal egotism and indulgence.

A neurologist, who has known this man intimately for twenty years, assures me that although there was at first no symptom of mental unsoundness the man is now practically insane, a victim of energy out of place, a hulk.

Contrast this with the case of Miss C——. From infancy an incurable cripple, she passed through a puny childhood into an apparently hopeless womanhood. As if her physical incapacity were not enough there developed a pressure which not only caused almost unremittent pain, but also involved the nervous system in an obscure but grinding irritation. It was one of those ailments which drag down, as it might seem almost by a cruel conspiracy, body, mind and

soul to helpless wreckage, a sort of demoniac possession of an innocent victim.

Drug habit, drunkenness, suicide, even, might almost have been logical in such a sufferer. She did not seek refuge in drugs or drink or death. She went to work. Happily she had a pretty knack in minor metal designing, and she soon found a place where she could make a comfortable living.

After this had been going on for some time a distantly related rich family became interested in her and gave her opportunity to have the most expert surgical treatment. They also urged her strongly to give up work as it would no longer be necessary. The question was referred to her family physician.

"Give up her work? Not on any account," said he firmly. "She is making her life by making her living. If an operation is necessary let her undergo it, but it must be with the idea of resuming her employment as soon as she recovers."

"But she ought to be in a private hospital being cared for permanently," objected the relatives. "The work will kill her."

"Possibly," admitted the doctor. "Meantime she is living. In a hospital, with no outlet for that wonderful energy of hers, she would die ten times every day."

My little friend is still alive—very vividly so. For ten years she went on with her work, apparently getting better every year. The improvement was more apparent than real: Miss C——is not cured; I only wish that I might say she was. Physically she is somewhat worse than in her early womanhood. But nervously she has recreated herself. She is, in truth, the captain of her soul. Not only is she steadfast and uncomplaining, but, far more, she is also a vital, inciting, inspiring personality, a real force in the wide circle which she has made her own by virtue of her eager and wide-ranging intellectuality. She feels life to be richly worth living. She has achieved, in the fullest sense, success.

To a physician who knows both of these sufferers I put the rather highly hypothetical question of what would have happened could the two bodies have changed souls.

He said: "The woman, given the man's soul, would have been a morphine fiend at twenty and a suicide at thirty. The man, with the woman's soul, would today be the foremost commercial figure in the Middle West."

Yet the woman started and will end under an inestimably heavier handicap than the man.

Warnings and Safeguards

SUMMING up the views of the experts who have helped me with material for this article I find that the advice which is useful in any general sense seems rather nebulous. But the disease itself is nebulous.

Certain symptoms should be regarded early and should send the sufferer to a specialist at once. These are, in general, depression without definite assignable cause, sleeplessness, inability to fix the attention, any sense of persecution by the world at large, incapacity to reach a decision and stick to it, apathy, and lack of interest in life.

For the woman, or the man for that matter, who is naturally of a nervous temperament the following simple rules will be found very useful:

Don't read technical medical literature; you will only misappropriate other peoples' symptoms.

Don't take "patent medicines" nor any kind of drug without a physician's advice.

Leave alcohol and tobacco alone.

Don't drink tea and coffee.

Don't abuse your eyes.

Keep your digestion in good working order.

Learn how to exercise, how to rest and how to relax.

Never talk about your symptoms except to a doctor.

If you can face facts courageously get and read two books: "The Way With the

Nerves," by Dr. Joseph C. Collins, and "Self-Help for Nervous Women," by Dr. J. K. Ritchell.

Above everything else train yourself not to worry.

To the woman who is already a victim of nervous disease there is one thing to be said: Think away from yourself; "look up and not down, look forward and not back, look out and not in, and lend a hand." Get a hobby or an interest which will make you think of others. The best antidote for unhappiness in one's self is thought for the happiness of others. For the nerve-racked I know of no finer nor more helpful doctrine than is embodied in a brave old quatrain:

Life is mostly froth and bubble;
Two things stand like stone:
Kindness in another's trouble,
Courage in our own.

—*Samuel Hopkins Adams, in the Ladies' Home Journal.*

Beauty is Merely Health and Physical Comeliness

THE author of the maxim that beauty is only skin deep is credited with a truth aptly expressed. True, beauty is skin deep, but in more senses than one. In reality, the maxim is a terse statement of a most profound fact as we shall see.

What makes a good skin? Pure blood, good kidneys, and strong lungs. What makes pure blood?—Perfect digestion. And what makes perfect digestion?—Plain food and not too much of it, together with exercise and other things that tend to good health. It is easy to see, then, that a fine skin comes from good health, and beauty therefore is but skin deep in the sense that there can be no beauty unless there exist the conditions that demonstrate themselves in the shape of a beautiful skin. That, then, is something for which every girl should be thankful, for you see that she can control her health and through her health her attractiveness. Remembering this she need not be concerned about the colour of her eyes, the size of her nose, the tilt of her chin, or any other of her inherited characteristics. These may add to or detract from her looks, but they will never determine her true beauty, which lies outside the region of facial perfection and in the domain of perfect health.

The beauty of physical health is a force which people often appreciate without knowing just what it is that compels their admiration. If asked to analyse the attractions of a given girl they would probably fail to do so. When told that that to which they have been rendering homage was merely good health they would probably be sceptical. Yet what in reality has so attracted them? Simply, rosy cheeks, a sprightly manner, a good poise, beautifully rounded limbs, and delicate curves of face and body. And all of these are only indications of perfected health.

The story is told of a country doctor and and his wife who visited the Museum of Fine Arts in Central Park, New York. The doctor's wife was entranced with the charms of the female figures, and could not sufficiently express her admiration for their beauty. Finally she turned to her husband and said, "Wouldn't it be fine if all the women in the world were as lovely as the sculptors have made these statues?"

The doctor made a wry face and looked at his spouse disapprovingly.

"Where would I find any patients if all women were like that?" he grunted. "You don't suppose that these superb creatures ever had dyspepsia or headaches or any female weakness, do you? Beauty is all right in a museum, my dear, but if the time ever comes that all women are as beautiful as these, there'll be no work for us doctors."

It would be hard to find a girl over fifteen

(Concluded on Page 22)

: Mother and Child :

The "Don't Touch" Nursery

NEED I paint the scene? The beautiful nursery, decorated with softest art colours, the empty floor, the oppressive tidiness. There is an elderly, superior nurse and a nursery maid in attendance. The nursery wing has such charming appointments, bathrooms, night nurseries, rocking horses, and expensive toys. In the midst of it all sit the two little whitefaced children, inert in expression, but always fidgeting. They are children who "mustn't touch." . . . It was no use to explain to their mother that the children were starving, that the village children, making mud pies at will, were rich in childhood's wealth compared to hers.

A great physiologist and teacher, Dr. Mme. Montessori, is now proving to the world in her schools for rich and poor in Rome that "Don't touch" means to a child "Don't learn." She has proved that deficient children taught through their sense of touch have passed, and long passed, normal children taught on our "barbarous methods." Having proved that, she has turned to give the normal children of the slums and the embassies of Rome their chance. The old-fashioned nurses and the old dames knew how keen and pleasurable were the games of touch. "Here's the Lord Mayor," "Pat-a cake," and "Fly-away Peter," have been every child's delight. People will tell you that "it's impossible, you can't let children touch things, they break everything." My four little lads have been entrusted from their babyhood with my watch, and my silver mirror, and many other treasures; but children must be given precious things when alone and when giving their full attention to what they are doing. My small boy, aged two, invented a game for himself with the pins of the pincushion (hatpins and every kind) and part of the tree of my hunting boots. With a very delicate adjustment, he got the points of half a dozen pins into two small holes in the trees, and morning after morning he sat absorbed doing this. He now goes up and down stairs by himself (he is two years and two months); but when a child tries such things, requiring care and nerve—while he is bringing the newly-acquired muscles into the perfect balance of use—you must watch him, but never say "Take care," or in any way disturb his perfect attention.

Teachers of all nations are crowding to Rome to learn Mme. Montessori's methods, but in the meanwhile we can do something for our children. There is no such perfect kindergarten as one's own house. The real things that are done in the greenhouse, stable, and garden, and the "why" of their doing, is a liberal education, and one whose use is obvious.

But to give the children this liberal education means determining once for all that our existence shall not be that of warrior ants, who die if the slave ants neglect to feed them. With wise handling, good servants will be your helpers, but you yourself must do for the children's sake much that in ordinary circumstances you need not undertake. In other classes children help because need requires, and the children profit to the extent that even when it comes to Cambridge honours only very small proportion go to the upper middle class, or the boys from the public schools.

In a country life, children with sufficient freedom find themselves easily, but the surburban life is for them an eventless plain. Everything is supplied, without visible cause and effect. You do not buy a young horse

from a paddock (at least in Ireland we do not) if you can get one who has roamed rough ground or a mountain side. You want "cleverness" and muscles trained in all sorts of ascending and descending. You want eyes that look before their owner leaps. The paddock does not produce the mind, nor the ordinary surburban villa the men. Mme. Montessori roughens her paddock, and she never helps. The child must first find out for himself how to do that knot, how to get cubes and circles, squares and triangles, into their respective moulds. He must try and fail, he must try again (perhaps another day) and conquer. There is no more needed lesson in our spoon-fed lives.

The great teacher knows also the secret of power from repose. The children's favourite game is "silence," when, in darkened room, they sit all ears, not eyes, and listen for the whispers of game. "Quiet nerves in authority mean quiet nerves in the children." I recall a kindergarten on such lines, but it makes one hope Mme. Montessori's methods may soon reach the children of the British Isles.—*The Queen.*

Live With Your Children

To move another life you must touch it. A father who spends all day in work or business and all evening at his lodge or club, is a miserable sinner in the sight of God, and needs to bring forth works meet for repentance before he can set his life right with the Heavenly Father. The mother who spends most of her time at social parties and literary clubs, turning her child over to the doubtful care of hired help, should be severely dealt with by society, for she is violating a sacred trust. Live with your children. Not that you need always to be with them. But stoop to their level. See life as they see it. Lucky the boy whose best charm is a noble father. Fortunate the girl whose most valued friend is her mother.

To fulfil all these holy duties and grave responsibilities, parenthood needs the sanctions and indorsement of religion. Well might a father and mother exclaim, as they contemplate all the possibilities of mistake and all the obligations imposed in the training of a family, "Who is sufficient for these things?" It is a task calling for love and wisdom almost divine. There is no argument so potent to drive a person to Christ as the fact that he or she is a father or mother. The issues involved are too tremendous for mere human strength or wisdom.—*Child-Welfare Magazine, August, 1912.*

For the Girls I Know

WHEN Margaret went up to bed last night, she stood for a moment self-absorbed in the middle of the room. Then she exclaimed: "Oh, I wish all the girls could have heard!" Then, as the suggestion flashed upon her, she cried joyfully: "I know what I'll do; I'll write it down just as they said it." The next moment, with her pad in her lap and with her sharp pencil, she began to write the following:—

"This afternoon the sewing circle met here, and when I came in after school, I peeped in the front parlour door, and the women were such a pretty, busy sight that I stood to look, and then one of them, a dear, beautiful, old lady, said: 'If I were a girl again, I should be more thoughtful of my mother. Not until I had girls of my own to work for did I begin to realise what my mother had done for me.'

"Then another woman, middle-aged, with a sharp, worried face, spoke quickly: 'If I were a girl again, I should learn to do something to support myself. Here I am forty-two, as you all know, and I couldn't earn my breakfast unless I went out and did housework. Nobody cares for an unskilled and untrained workwoman, and that's what

I am. It's a blessing to me that I don't have to earn my breakfast.'

"'If I could be a girl again,' said a woman with a sweet voice, 'I should never leave my Sabbath-school. You can't think how I envy the girls who have grown up in Sabbath-school as if it were a home, and they are as much at home as I am among my children. I've been out of Sabbath-school thirty years, and it is a loss that can never be made up.'

"'If I could be a girl again,' a placid-looking woman said, 'I should never give up studying. I should never allow myself to lose the habit of learning things. Why, it is even hard for me now to learn a long Bible verse. I must choose a short one, or humiliatingly write it on a slip of paper to look at the last minute.'

"'And if I were a girl again,' spoke up a lady with a quick tongue, 'I should never allow myself to speak of anybody's faults—no, not anybody's! You can't think how much you get to see faults if you let your mind run on them.'

"Then a lady in the corner spoke sadly: 'If I could be a girl again, I'd begin by not being ashamed to be a Christian. I should take a stand, and stand. You who have never failed cannot think how it helps to have people know what to expect of you. By shilly-shally work you don't know what to expect yourself.'

"I began to go through the two rooms, and every woman had something encouraging or discouraging to say about her own girlhood. 'If I could be a girl again, came from somebody, 'I should make myself write letters. To-day when I write one of my awkward letters (and I never write a letter if anyone else will do it for me), I regret that I hated to write letters, and would never learn to make it easy. I always feel that I have lost something when I hear people who have letter friends. My sister writes the happiest letters to twenty invalids. She is doing a cup-of-cold-water work in a way that I never can.'

"'And I,' said a little woman, should learn to sew. I am as awkward with a needle as if it were a hoe, and my needle makes about as good work as a hoe would.' Everybody laughed.

"Then such a pretty woman said: 'If I were a girl again, I think I should rather be a plain girl. I was pretty, and people told me so, and I was spoiled. I loved admiration better than bread and butter, and twice I lost promotion in school for having company and going to parties. Not but that a pretty girl can have good sense, though.'

"'If I were a girl again,' said an intellectual-looking woman, 'I should not give up everything for study. I should be a womanly and housewifely girl, as well as a student, and if I had one taste that dominated all others, I should not let all the others run to waste. I was deep in mathematics when I could not spell in my own language as correctly as a girl of twelve, and my penmanship was disgraceful.'

"'And I should try to make friends,' remarked a silent-looking woman. 'I forgot when I was a girl I should need friends when I was older; and when I see women with their school friendships keeping them young, it makes my lonely heart ache.'

"'If I could be a girl again,' said somebody whose face I couldn't see, 'I should read only the best books.'

"'I should study and read the Bible more, someone said in reply. 'I should take it as real and alive, and meant for me, and should grow up on it.'

"Then a rather young woman said sweetly' 'If I could be a girl again, I shouldn't grow so fast. I should stay as fresh and young as I could, not live ahead of my age, but just as a girl flower, and bloom as God gave sunshine and rain.' "—*Selected.*

"MIRTH is God's medicine, everybody ought to bathe in it. Grim care, moroseness, anxiety—all the rest of life—ought to be scoured off by the oil of mirth."—*O. W. Holmes.*

Some Entrees

Baked Stuffed Pototoes

Tomatoes, medium size, 6.
Protose, chopped, ½ pound.
Sage, ½ teaspoon.
Parsley, chopped.
Bread crumbs, toasted, ¾ cup.
Onion, chopped, 1 tablespoon.
Salt, 1 teaspoon.

Take out the inside of the tomatoes, and mix with this the bread crumbs. Then add the other ingredients, and fill the tomatoes, piling mixture up on top. Place a small piece of butter on each, and bake in a hot oven, until the tomatoes are cooked. When nearly done, sprinkle chopped parsley over the top.

Green Pea Souffle

Green peas, one tin.
Milk or cream, ½ cup.
Eggs, 2.
Salt.

Drain the juice from the peas, force them through a fine colander, and add the salt, milk, and the beaten yolks, then the well-beaten whites; pour into a greased pan, and bake until well set. Serve at once.

Potato Chowder, Plain

Potatoes, diced, 2 quarts.
Onion, sliced, 1.
Celery minced, ½ cup.
Parsley, minced, 2 teaspoons.
Cream sauce, 1 pint.
Salt.

Place all in layers in a granite pan, adding a little salt with each layer. Cover with hot water, and cook under cover, in oven, until tender; then add a pint of cream sauce, and serve.

Corn Chowder No. 1

Milk, 2 quarts.
Corn, 1 tin.
Potatoes, diced, 2 cups.
Onion, grated, ½ teaspoon.
Butter, size of walnut.
Flour, 3 tablespoons.
Salt.

Put the butter into the milk, and heat; thicken with the flour, braided smooth with a little cold milk; add the onion, salt, corn, and potatoes; poor into a granite pan, and bake under cover until the potatoes are tender.

Corn Chowder No. 2

Corn, 1½ tins.
Protose, or nut cero, ½ pound.
Potatoes, medium size, 3.
Cream, 1½ cups.
Salt.

Grind the corn, and place half of it on the bottom of a granite pan. Next add the protose or nut cero, which has been diced, and the sliced potatoes, sprinkled with salt; cover with the remainder of the corn, and then with the cream; bake until the potatoes are done.

Escalloped Corn

Corn, 2 tins.
Tomatoes, 6.
Tomato sauce, 1½ cups.
Salt.

Grind the corn, and place a layer of it on the bottom of a granite pan; on this slice the peeled tomatoes. Now cover with the remainder of the corn, and then with the tomato sauce; sprinkle with bread crumbs; bake.

Baked Corn

Corn, 1 tin.
Egg, 1.
Oil, ¼ cup.
Milk, ¾ cup.
Flour, ¼ cup.
Bread crumbs, ¾ cup.
Salt.

Braid the flour with a portion of milk, beat the egg, mix all together, and bake until well set and browned.

Green Corn Nut Pie

Corn, ground, 2 tins.
Rich milk, 1 cup.
Flour.
Eggs, beaten, 2.
Salt to taste.
Onion, minced, 1.
Celery, chopped, ¼ cup.
Oil or butter.
Water, 1 cup.
Tomatoes, strained, ½ cup.
Nuttolene or protose, minced, ¾ cup.

Mix the corn, the milk, three fourths of a cup of flour, the beaten eggs, and the salt. Braize the celery and onion in a little butter or oil, and add to them two tablespoons of flour, and the water, tomatoes, and minced nuttolene or protose. Oil a baking pan, and cover the bottom with one half of the corn mixture; then put in the nut food mixture and on top put the remainder of the corn. Bake till nicely brown.

Vegetable Oyster Pie

Vegetable oysters, 1 quart.
Potatoes, 1 cup.
Cream sauce, 2½ cups.
Pie paste sufficient to cover.
Parsley, chopped, 1 teaspoon.
Parsnips, 1 cup.
Salt.

Boil the vegetables separately until tender; then mix with the other ingredients, and put in a shallow baking pan. Cover with the pie paste, and bake a light brown. Serve hot.

Fish Pie

Macaroni, 2 cups.
Onion, 1.
Cream sauce, 2 cups.
Salt to taste.
Eggs, 3.
Parsley, chopped fine, 1 teaspoon.

Cook the macaroni in slated water, drain, and chop fine; have the eggs boiled hard and chopped fine, and the onion grated. Mix all together, sprinkle with toasted bread crumbs, and brown in the oven. Serve with tomato Chili sauce.

How to Drink Milk

DON'T swallow milk fast and in such big gulps. Sip it slowly. Take four minutes at least to finish that glassful, and don't take more than a good teaspoonful at one sip.

When milk goes into your stomach, it is instantly curdled into one big mass, on the outside of which only the juices of the stomach can work. If you drink it in little sips, each little sip is curdled by itself, and the whole glassful finally finds itself in a loose lump made up of little lumps, through, around and among which the stomach's juices may percolate and dissolve the whole speedily and simultaneously.

Many persons who like milk and know its value as a strength giver, think they cannot use it because it gives them indigestion. Most of them could use it freely if they would drink it only in the way I have described, or if they would better still, drink it hot. Hot milk seems to lose a great deal of its density; you would almost think it had been watered; and it also seems to lose much of its sweetness, which is cloying to some appetites.

If the poor only knew and appreciated the value of milk taken in this way, I am sure there would not be so much beer drinking among them. There are thousands of hard-working scrubwomen, washerwomen, factory-girls, and even shop-girls who drink beer with their meals because it gives a little stimulant to their tired bodies; they do not understand that it is only like applying a whip to a weary horse instead of giving him oats. If they only knew, they would find in this simple draft as much real strength as in a barrel of beer.—*New York Tribune.*

THERE is no scientific justification for the employment of alcohol in medicine.—Dr. *Alfred Carpenter.*

The House We Live In

The Voice

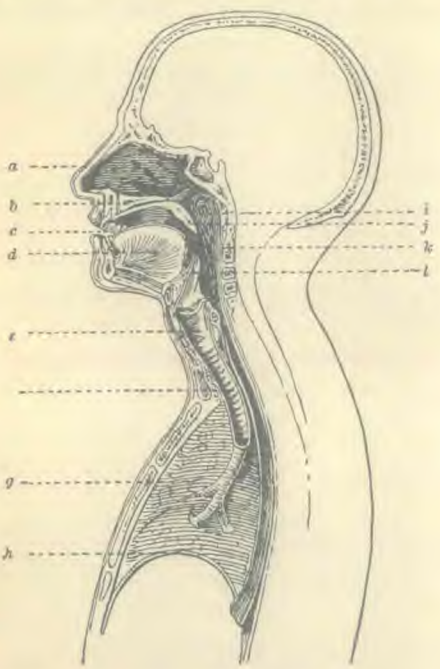
THE apparatus which is used to produce sound resembles both in structure and in principle an ordinary wind instrument. The specific vocal apparatus is known as the larynx or voice-box. The lungs are the bellows, and the blastpipe is the trachea, more commonly known as the windpipe. The vocal cords represent the vibrating reed, while the pharynx, mouth, and nose furnish the resonating chambers.

The Larynx.

The voice-box is situated at the top of the windpipe under the chin, and when it is prominent as in the case of most men it is called "Adam's Apple." This is the organ of voice. The voice-box is an open space the walls of which are made up of two pieces of cartilage or gristle, the thyroid and the cricoid. Stretched across the box we find two bands with a narrow slit between them, which are composed of fibro elastic tissue. These are the vocal cords, and when they vibrate a musical note is produced.

Vertical transverse section of larynx, showing (a Epiglottis) and vocal cords.

The vibration of the cords is produced by the lungs driving a blast of air through the voice-box. The sound produced by the cords alone is of course weak, but it is reinforced by the resonating chambers already mentioned.



OUR VOICE-PRODUCING INSTRUMENTS
(Adapted from Behnk's "Human Voice.")
(a) Nasal cavity; (b) Hard palate; (c) Mouth; (d) Tongue; (e) Larynx or voice-box; (f) Trachea or windpipe; (g) Lungs; (h) Diaphragm; (i) Eustachian tube; (j) Soft palate; (k) Upper Throat; (l) Pharynx.

Loudness, Pitch, and Quality

The loudness of the voice varies both with the size of the larynx, being greater in men than in women, and also with the strength of the air blast which is forced through the larynx.

By pitch of the voice we mean the rate of vibration of the cords per second. According to Martin, "an ordinary good bass voice has a compass from 88 to 297 vibrations per second; and a soprano from 248 vibrations to 792 vibrations per second." The number of vibrations again depends on both the length and the tension of the cords. The longer the cords the fewer number of vibrations, as in the case of the male. The shorter the cords the shriller the voice becomes, as in the case

of children for example. The quality of the voice is a more complex matter and depends upon what we call overtones. These overtones vary in prominence by the shape and size of the resonating chambers.

The true voice is the chest voice which is produced by the vibration of the entire vocal cords. Falsetto, a higher pitch, is, according to Paton, "probably produced by vibrations of the edges of the cords." The "breaking of the voice" in adolescence is caused by the rapid growth of the entire body and the marked development of the larynx which takes place at that time.

The voice range is usually something like three octaves and oftentimes less, but the great singers have a wider range.

Recreation for Health

BY A. B. OLSEN, M.D., D.P.H.

BEFORE deciding upon what to do and where to go for the holiday it is a wise thing to take a physical inventory, that is, ascertain as far as possible the true status of health both of body and mind. Many a city worker, whether a stock-broker, a clerk, or a shop assistant, is often too tired, overworked, or debilitated to profit by an ordinary holiday, which is often enough a somewhat strenuous affair.

Rest Required.

What such a worker requires is rest and quietness, as well as change of environment and scene. If energy is wellnigh exhausted, if the worker is suffering from nerve strain and worry, and perhaps has difficulty in getting sufficient refreshing sleep, and if there is a feeling of tiredness in the morning on waking rather than fitness for the day's duties, then the worker ought to combine the holiday with some tonic treatment such as baths, massage, or electricity; indeed, it would be an excellent practice for workers who are suffering from brain and nerve fatigue to begin the holiday with a quiet rest in bed for one, two, three, or four days, and thus give their nerves complete relaxation. Altogether too often the holiday is necessarily a very brief one, perhaps a week, a fortnight, or at the most three or four weeks, and it requires wise planning to make the most of these precious days, so as to be able to return to work refreshed in body and soul and eager for the daily task. Wherever possible the rest in bed should be taken out-of-doors in the fresh air, or on a veranda, at least during the daytime. Cheap cots or reclining chairs with canopy tops can be obtained for this purpose, and care should be taken to cover oneself up well with rugs so as to keep warm. No rest is so refreshing and satisfactory as that which is obtained out-of-doors in the fresh air.

After a few days' rest in bed for the purpose of recuperating the worn-out energies and quieting the sensitive and excited nerves, the next step is to get up and take little walks in the garden or engage in a quiet game of croquet, and later on lawn tennis or golf. Short crosscountry walks with a view to studying the flowers and trees and birds make a very pleasant and interesting diversion, but strenuous exercise should be avoided, at least during the early part of the holiday.

Besides rest and recreation the overtired worker needs a generous diet of good, wholesome, nourishing food; but the diet should be simple, and three meals a day are almost invariably sufficient and better than taking food oftener. Narcotic drinks such as tea and coffee, besides alcoholic beverages, should be strictly avoided, and flesh foods taken sparingly, not more than once a day. For most if not all people, it would be an excellent thing to drop flesh foods entirely during the holiday, and take in their place fresh egg and milk preparations. It is also desirable to take fruit freely, and fortunately fruit is

as a rule both cheap and abundant during the holiday season.

A Real Change.

As far as possible the holiday season should afford a real change to the worker, and to make this possible it is usually necessary to get away from home. The city worker goes to the country or some quiet seaside place. He secures lodgings in advance in a good boarding house where he can get the food and accommodation that he requires. Those who follow the food reform diet during the holiday should make it clear to those in charge of the hotel or boarding-house in advance, so that there will be no misunderstanding. It is a great mistake to think that one must have a large number of so-called meat substitutes and specially made-up dishes. Many food reformers would do better if they simplified their diet and avoided the complicated dishes and rich compounds which so severely tax the digestive organs, and are likely to be productive of gastric mischief. Fruits, either fresh or stewed, can be obtained freely anywhere. Salads of various kinds are readily and quickly prepared and make a very refreshing and wholesome dish. Eggs may be taken raw or boiled, and in this form are superior to the more complicated dishes. Milk may be taken fresh or soured, or in the form of freshly-made curds or fresh cheese, and makes an excellent substitute for beef-steak, mutton chop, or fish. If in addition to these foods a dish of oatmeal porridge can be obtained for breakfast, baked potatoes for dinner, and good wholemeal or brown bread, there is no call for further cookery.

Beauty is Merely Health and Physical Comeliness

(Concluded form Page 14)

years of age who would not submit to any sort of torture if she thought it would give her beauty. Yet no agonies need be suffered to get it and keep it. When the words "beauty" and "health" come to be synonymous terms in a girl's mind, she will be willing to practise some amount of self-denial in order to secure the former. She will, for instance, decline to eat chocolate creams, lobster, animal flesh, fried oysters, or drink quarts of so-called "sodas." She will no more dream of swallowing harmful things than she would of wearing an unbecoming dress, or a hat that did not harmonize with her hair or complexion; and, what is of vastly greater importance, she will inaugurate a system of ten or thirty minutes of exercise daily, since this is one of the secrets of keeping the blood pure and the internal organs clean and in perfect working order. Every famous beauty and every actress celebrated for her personal charm knows this secret, and they consequently persistently cling to their exercises and cold baths for the sake of the resultant youthfulness and beauty that they impart to face and figure.

Who does not know what a girl will go through to get a pretty dress, or a new hat? Won't she cheerfully sit up half the night to sew? Won't she deprive herself of small luxuries and even necessities if she can thereby secure something which she believes will add to her charms? When a girl once knows that health is beauty, and beauty is health, she will make just as vigorous efforts to increase her health as she has made heretofore to enhance her attractiveness by the use of fetching millinery and pretty dresses.

Some amount of effort is necessary on the part of those who wish to be healthy. But the reward is immeasurably greater than the labour.—*Bernan Macfadden, in "Health, Beauty, and Sexuality."*

INFANT MORTALITY

Of the many questions deserving the most serious attention of the profession and the Government, Infantile Mortality stands first. Although statistics are not available except for Calcutta it may be said that a very large proportion of the deaths occur within the first month of life. The most noticeable feature of the satistics of infantile mortality is that the rate of mortality is higher among male than among female children and that over half of the children dying within a year of birth actually die within the first month. According to Dr. Pearse, formerly Health Officer of Calcutta, out of the 2,700 children dying within the first year, about 50 per cent. came under the head of premature birth and debility at birth and about 1,000 fall under the head of tetanus and convulsion. The condition of the health of the parents and the extremely insanitary condition of child-birth account for most of these early deaths. Early marriage in most cases is responsible for the ill-health of the parents, particularly of the mother. These and such other social conditions are however very difficult to alter or remedy, and the spread of education alone can remedy them in time. Insanitary condition of the lying-in-room among the Indians is proverbial. One of the worst rooms in the house, or a shed out in the compound is generally selected for the purpose. As a rule the room is small, dark or ill-ventilated, and the windows if there be any, are kept closed in order to prevent the mother and the child catching cold. Happily these ideas are fast dying away. The after treatment is still worse. The mother has to be on a bed which is too meagre often made of straw covered over by a dirty cloth or an old torn mat with a quilt pillow. Thus she is left to all sorts of insanitary conditions at a time when she is highly susceptible to catch an infection.

The causes of infant mortality are many. But, according to Mr. L. S. S. O'Mally, Superintendent of Census Operation, Bengal, "debility from birth is the all too frequent consequence of early marriage, or the result of the poor vitality of parents, specially in malarious areas where persistent fever weakens the system. Among the labouring classes many of the mothers poorly-fed coolie women who continue to work to the very end of their pregnancy, with the result that they give birth to weakly and not infrequently premature infants who succumb during the first few hours, days or weeks of external life." It may be stated in this connection that want of proper management contribute to a large number of deaths. Insufficient clothing combined with exposure, and neglect in the case of girls, as well as ignorance of proper treatment of infantile diseases are also responsible for an equally large number of deaths.

All the factors lead us to the conclusion that much could be done to prevent this high rate of infantile mortality. Primary education with regard to the suitability of the lying-in-room, and the value of absolute cleanliness may be imparted to the householders by local medical men. Every Municipality and District Board should have one or more trained midwives to attend to the confinement cases amongst the poor without charging any fee. The local medical man should be sent for in cases of emergency and be he in service or not the fee should be paid by the Municipality or District Board. Some active step in this direction is urgently necessary and we are sure that these measures will reduce the high rate of infant mortality to a considerable degree.—*Indian Medical Record.*

TYPHOID FROM WATERCRESS

It is apparent that an attempt to trace typhoid infection to the use of uncooked vegetables such as lettuce, watercress and celery is likely to succeed only under rather peculiar conditions. Ordinarily the distribution of such articles of food to a large circle of consumers, and the difficulty of discovering, several weeks afterward, that such things were eaten, and by whom, are facts that conspire to render us ignorant of the real frequency of such sources of infection. A remarkable typhoid outbreak apparently due to polluted watercress has recently been reported from Philadelphia. At a wedding breakfast, June 24, with forty-three guests in attendance, nineteen persons ate wa-

tercress sandwiches. Eighteen of these were ill, July 22, with typhoid fever, only two of them being in Philadelphia at the time, while the other sixteen were scattered in suburban territory and in summer resorts along the Atlantic coast as far away as Maine. Investigation by the Philadelphia Bureau of Health showed that the watercress had been secured from a farm on which the sanitary conditions were quite unsatisfactory. While the typhoid bacillus was not isolated from the cress-bed, all the other circumstances of the outbreak afford strong reason for suspecting watercress to be the vehicle of infection. It may be recalled that an outbreak of typhoid in Hackney, London, in 1903, was likewise attributed to watercress infection, although the evidence in that outbreak was not so convincing as that in the one just cited. Infection by celery has also been reported. Students of epidemics will have their attention still more strongly drawn by the Philadelphia case to the possibility of infection from such sources.—*Journal American Medical Association.*

THE CARELESS LIVER AND THE HYGIENIST

The average careless liver, although he may be perfectly willing to swallow some "magic" elixir, exhibits uneasiness tinged with suspicion when approached on the subject of prolonging his life by means of adjusting himself to his environment. He feels that the span of life is fixed, and he cherishes but little hope of "beating the game." In other words, that convenient individual, the "man on the street," is as skeptical about materially prolonging his life without surrendering some of the indulgences which he thinks make life worth living. It is this attitude of mind which leads him frequently to characterize the health-reformer as a "kill-joy," who is "against everything." . . . But it is far from the minds of those directing this new force of human betterment to advocate a mere niggardly or parsimonious hoarding of existence, without regard to its quality, colour or meaning. The real warfare is against needless misery, preventable disease, mental and physical inefficiency, and the pitiable handicaps that not only shorten life, but take out of it the colour and the satisfaction that make it worth living. Using the term in no sinister Nietzschian sense, the superman should not only live long, but live well, deriving his joy in life from the normal hormones circulating in his tissues, and not from the fleshpots or narcotic indulgences of our friend

the careless liver. The prolongation of life is the end that justifies the means, and the immediate work in hand is to make life more livable.—Eugene L. Fish, in *Pop. Sc. Monthly.*

ALCOHOL IN INFECTIOUS DISEASES

Ewald is not a teetotaler yet he has dropped the use of alcohol almost entirely in his medical service and practice, regarding it as absolutely useless in acute and chronic infectious diseases from the standpoint of reducing the temperature or destroying the bacteria or as a hypnotic. Alcohol does not increase the resisting power of the blood but rather reduces it; habitual users of alcohol are attacked by infectious disease just as often and just as severely as those who do not use alcohol, and they prove less resistant than the latter. The use of alcohol as a food is futile in a single dose, and the continued use is directly harmful. As a stomachic alcohol can be entirely dispensed with; much better results can be obtained from hydrochloric acid and pepsin in proper doses or infusions of condurango, etc. In chronic tuberculosis, egg-nogs and alcoholic drinks breed gastric catarrh and reduce the patient's power of digestion and assimilation instead of promoting it. In severe colapse, toxic or mechanical or from loss of blood, the stimulating effect of alcohol may prove useful, especially as alcohol is practically always accessible in convenient form, but the success of the "temperance hospital," where not a drop of alcohol is allowed, shows that camphor, strychnine, caffeine, etc., in fact answer the purpose equally well if not better. He cites some experimental research and statistics, including some from a large Leipsic sick benefit society which show that pneumonia occured ten times as often among hard drinkers as among the other policy-holders and was fatal in a like proportion. Articular rheumatism and other infectious diseases occurred nearly twice as often; and some English statistics show nearly twice as many cancers among drinkers. At the same time, Ewald thinks that a judicious use of alcohol to give flavour to a meal is sometimes advisable, particularly in chronic diseases, the benefit from the appetizing, stimulating influence outweighing the deleterious consequences. But even here, he warns, the use of alcohol in this way should not be allowed to become a habit but should be only occasionally permitted.

WITH all deductions, the triumphs of sanitary reform as well as medical science are perhaps the brightest page in the history of our century.

NEWS NOTES

PATENT MEDICINE DOMINATION

The way out of the "patent-medicine" domination lies in the better training of physicians on the one hand and the enlightenment of public opinion on the other.

ALCOHOL IN MEDICINE

Professor Ewald, of Berlin, has recently taken the position that alcohol no longer occupies a place of usefulness in the treatment of disease, except for certain external conditions. He says that the value of alcohol in infectious diseases has not been proved, and that it actually diminishes natural resistance. In his clinic, alcohol is administered only in severe collapse, or as a means of euthanasia. "It is probable," comments the Boston *Medical and Surgical Journal*, "that the next fifty years will see a gradual increase of this reaction, already rooted in the practise of most progressive physicians, against the indiscriminate use of alcohol."

THE FEEDING OF CHILDREN

Those w re notable words by Dr. Schaleck at the recent Minneapolis meeting of the American Medical Association: "The diet of older children always needs careful supervision. The mistake of allowing them to eat indiscriminately of whatever food is served to adults is commonly made. When it is considered how often they are fed on sausage, cheese, pickles, sweets, and other indigestible food up to the limit, it seems remarkable that no more harm is done. The control over the eating is still more important when the children are affected with skin diseases, and at times a plain-milk diet becomes imperative."

STOMACH DISORDER SECONDARY TO INTESTINAL DISORDER

A series of carefully conducted animal experiments has shown that disturbances of intestinal digestion quickly cause disturbances of stomach digestion. Animals were prepared with a number of fistulas, or doors opening into various parts of the digestive tract. When normal products of digestion were introduced into the intestine, there was a normal secretion of gastric juice, and normal discharge of the stomach contents; but when partly fermented or putrid foods were introduced into the small intestine, stomach digestion was delayed, and the secretions were decidedly altered.

A MESOTHORIUM CONCERT

The directors of the clinics and of the city hospital have been endeavouring because of various publications concerning the favourable action of mesothorium on cancer, especially cancer of the uterus, to secure some of this preparation for clinical use. The state and various public officials and private committees as well have been endeavouring to raise money to buy a sufficient quantity of this preparation. In Munich at the initiative of Professor Doderlein, a concert was proposed, the proceeds of which should be used for this purpose. The prices paid by subscription for the tickets for this concert have been as much as $25. The various clubs and trade unions have promised their assistance so that there is hope that by means of the power of music, a sufficient quantity of mesothorium may be purchased.

BEDBUGS AND ENTERIC FEVER

Passed Assistant Surgeon Rigs, United States Navy, has furnished evidence showing that bedbugs, in some cases at least, are responsible for the transmission of enteric fever. At a certain post where the doctor was stationed, and where the water, food, and other conditions were under control, and there had been no cases of typhoid, there was a sudden outbreak of the disease which was so rapid in its spread that it seemed the entire post would come down with it. After every other cause had been excluded, it was learned that the disease originated with a prisoner who had come from a locality where enteric was epidemic. He was kept in the "brig." Others who occupied adjoining cells came down with the disease. Careful investigation revealed nothing that might be the cause of transmission except bedbugs. Fumigation of the bedding and destruction of the bedbugs put a stop to the further spread of the disease. Dr. Rigs cites two other cases in his private practise where bedbugs were undoubtedly the means of transmission. He believes that "household epidemics," where one case after another in a household occurs in a community free from the usual sources of infection, are, in the majority of instances, due to the activity of the bedbug. In the language of the Italian railway spitting signs, we might say to those who harbour the disgusting little pests, "For the sake of hygiene and decency" get rid of the bedbugs.

LIFE is made up of littles; let us see we do them all well.

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The award of six months subscription to "Herald of Health" for the best suggestion for the improvment of the magazine has been given by the editor to Habib Ahmad of Dhogrivia, Jullundur, R. S.

A suite of treatment and bath rooms similar to those now in operation in Calcutta and Mussoorie are to be opened in Rangoon early in 1914. This meets a long felt need of this large and flourishing Burmese city.

In the German army there was an epidemic of enteric, involving more than one hundred cases with twenty-three deaths. These cases were all traced to a cook, who was shown to be a typhoid or enteric carrier, and had probably been a carrier for years.

The famous Friedmann consumption cure from the injection of living bacterial organisms of the turtle has turned out to be infamous. The latest reports state that patients injected therewith, shortly afterward suffer "a serious and unduly rapid progress of their disease."

Beri-beri, the disease due in many instances to the consumption of polished rice is reported to be communicable from mothers to infants at the breast. A number of such cases are reported from the Philippines, all of which are said to have yielded to a treatment of extract of rice polishings.

MUCH of the sickness of this world could be avoided if its inhabitants were not so intent on their own selfish pleasures. The palate, the eye, the smell, the desire to gratify each in its own peculiar way, lead men into those excesses which produce ill health. Study to live simply and help others and you will enjoy better health yourself.

In a recent investigation of smallpox epidemics among five thousand cases examined not one death is said to have taken place among any who had ever been vaccinated. In another instance among one thousand cases of smallpox only four who c ntracted the disease had ever been successfully vaccinated and these had not been vaccinated for periods of from twenty te twenty-seven years.

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