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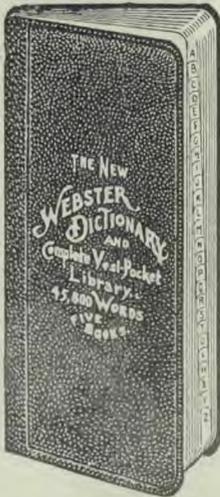


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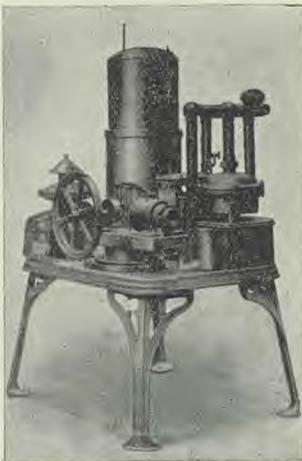
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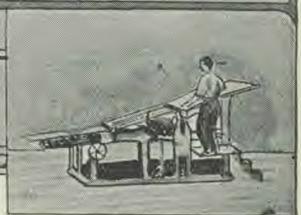
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THE TALK OF THE OFFICE



"In proportion as society refines, new books must ever become more necessary."

THE knowledge of the construction of the human body, its functions, and whatsoever pertains to its preservation, are of more vital importance and concern man far more than any other subject in the realm of science. That there is a steadily growing interest in all that pertains directly to life and health is clearly seen in the greater appreciation of childhood and the evident realisation that the integrity of nations depends upon the development of right characters in the young.

It is also becoming more gradually accepted that scientific knowledge of the body in its important functions is the greatest safeguard against evil. This calls for wise and true instruction to our boys and girls. It lays especially upon fathers and mothers the great responsibility of imparting purely and scientifically the knowledge which, while it robs science of much of its mystery, will assuredly save the youth from pitfalls in which to-day much usefulness is wrecked and so many lives are blighted.

A most practical help in imparting such instruction will be found in the works "Almost a Man" and "Almost a Woman," by Dr. Mary Wood-Allen.

These books, already so widely circulated, will not fail to inspire the youth with a higher regard for their bodies and encourage a greater care and respect for purity in thought and act. Each of these books will surely prove a reliable counsellor to perfect manhood and womanhood, with consequent health and happiness, and should therefore be found in every home. See advertisement on opposite page.



EDITORIAL

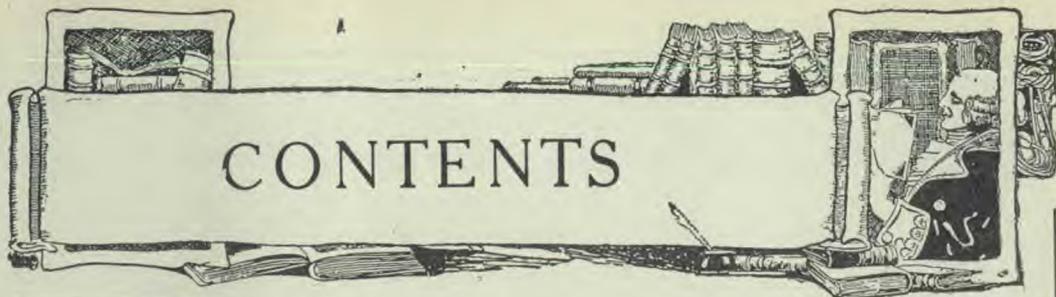
THE GREAT WHITE PLAGUE, No. 1	<i>A. V. Heynemann L.R.C.P. and S., Edin.</i>	265
THE EVIL OF INTEMPERANCE	<i>P. M. Keller, M.D.</i>	268
STIMULANTS	<i>W. H. James, M.B., B.S., Melb.</i>	270
THE RICE CURE	<i>David Paulson, M.D.</i>	272
MEASLES AND ITS TREATMENT	<i>Florence Keller, M.D.</i>	273
SANDFLY FEVER	<i>F. C. Richards, L.R.C.P. and S., Edin.</i>	274

GENERAL ARTICLES

HAVE AN IDEAL	<i>Dr. O. S. Marden</i>	275
MAKING STYLES BY LAW		279
THE LATTER HALF OF LIFE	<i>Herbert W. Fisher</i>	280
YOU HAVE NO RIGHT TO BE SICK		282
FATIGUE AND MORALITY		283
DANGEROUS ADVICE		284
THAT TIRED FEELING		285
LEAVING OFF THE DRINK		285
THE PEACEFUL CONQUEST OF DISEASE	<i>David Paulson, M.D.</i>	286

HOME NURSING

INFANTILE DIARRHŒA	<i>Eulalia S. Richards, L.R.C.P. and S., Edin.</i>	291
THE TREATMENT OF INFANTILE DIARRHŒA	<i>F. C. Richards, L.R.C.P. and S., Edin.</i>	293
NIGHTMARE IN CHILDREN		296
COLDS, THEIR CAUSE AND CURE	<i>Mrs. A. F. Haines</i>	297
WHILE GETTING WELL (Poetry)	<i>Isabel Ecclestone Mackay</i>	300



CONTENTS

QUIET TALKS WITH MOTHERS

THE NERVOUS WOMAN	-	<i>Eulalia S. Richards, L.R.C.P. and S., Edin.</i>	301
BABY'S MUSCLE AND HOW TO DEVELOP IT	-	-	303
WHEN THE BABY CRIES	-	-	304
A NEW REMEDY FOR WHOOPING-COUGH	-	-	305
TO AMEND ILLINOIS MARRIAGE LAWS	-	-	305

PHYSICAL CULTURE

MASSAGE	-	-	<i>E. R. Voigt</i>	306
EFFECT OF CIGARETTES ON SCHOOL CHILDREN	-	-	<i>C. Webster Wylam</i>	308

THE HOUSEKEEPER

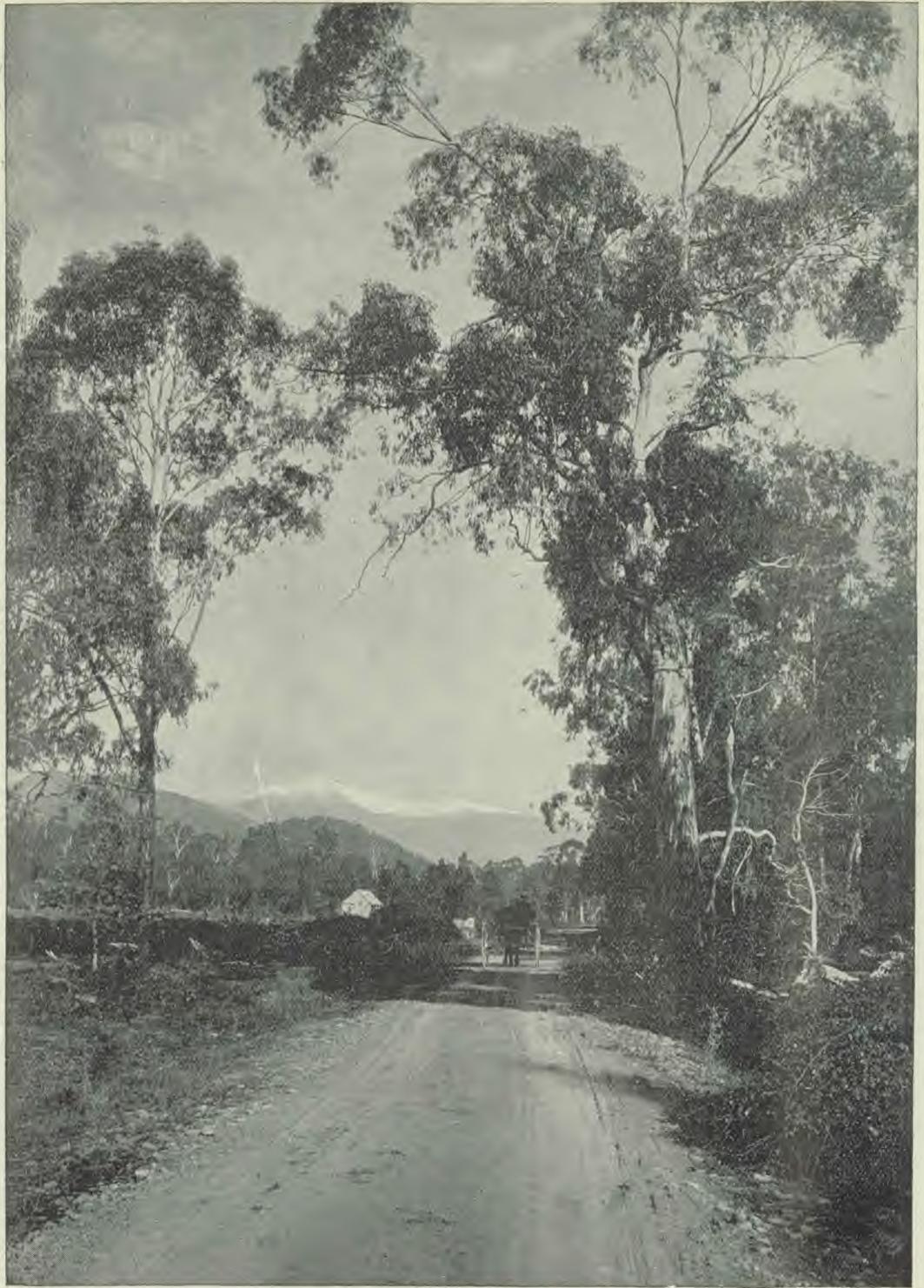
HINTS FOR THE SUMMER TABLE	-	-	-	310
THE FOREIGN GIRL AND ENGLISH IDIOMS	-	-	-	311
DAHLIAS AND POTATOES	-	-	-	311
TO KEEP FREE FROM FLIES	-	-	-	311
DRESSED IN THE LATEST STYLE	-	-	-	312
HEALTHFUL COOKERY	-	-	<i>Christina Manson</i>	312

CHATS WITH THE DOCTOR

F. C. Richards, L.R.C.P. and S., Edin.

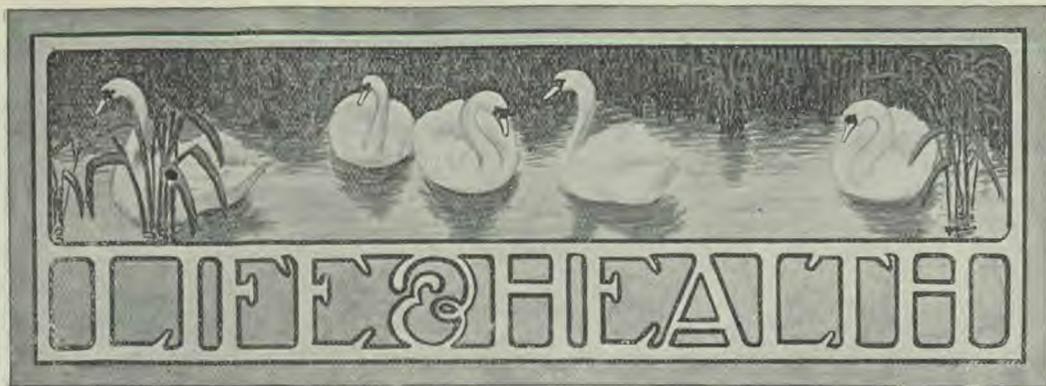
BLEEDING ULCER OF THE STOMACH	-	-	-	313
COLON CLEANSING; HYGIENIC USE OF THE ENEMA	-	-	-	313
HERNIA, OR RUPTURE	-	-	-	314
MEMORY TRAINING; MEAL HOURS; CLEMENT'S TONIC	-	-	-	315
COLD HIP-BATHS; RELIGIOUS PUBLICATIONS	-	-	-	316
THREAD-WORMS	-	-	-	316
MEAT PRESERVATIVES	-	-	-	317

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Melbourne, Victoria, Australia

October-November, 1911

The Great White Plague

Part 1

MUCH interest of late has been manifested, and rightly too, in perhaps one of the most important questions concerning the health of the people of this and other countries.

I speak not of that wave of pneumonic plague that slew so many thousands of Chinese and Russian victims. That is heart-rending enough, and the world must feel a great sense of relief that such a plague has eventually subsided. What anxiety was expressed by sympathising nations, who, with all speed possible, rendered every aid that was in human power, even to the sacrifice of human life itself, to curb and eradicate that awful disease. Just think of it! One germ, so small as to require the high power of a microscope to discern, having once entered the lung of an individual, is capable of such rapid multiplication as to slay its victim in a few hours. Untold honour is due to those who gave up their lives to go to China on such a venture to combat the pestilence.

The question at issue is one of more vital importance now to the welfare of our own Commonwealth. In Melbourne recently an important conference was held in which all the States of the Commonwealth, except Queensland, were represented by the principal medical officers and other delegates from each State. The purpose of the conference was the framing of "uniform measures for the control of consumption." Certainly it is hoped that the objects of this movement will be attained, for it is evident that nothing short of legislative control will achieve any satisfactory result in the complete suppression of the disease. This conference realised the fact that more serious attention is due to this subject.

With eagerness the people of the world were ready to share in the effort to save those thousands in China from the dreadful pneumonic plague, which is an incurable disease, while less concern is shown to sufferers of consumption, which is a preventable and curable disease.

This latter disease slays in Australia between three and four thousand people annually. In London between six and seven thousand succumbed to it in 1909. The annual death-roll of consumptives in the United States is 150,000. Throughout the world it is estimated that 2,000,000 people die from this "great white plague" every year, and it is a preventable and curable disease. What is more astounding is a recent prediction, based upon statistics, that the death-rate in London during the next ten years from this distressing malady will exceed 50,000.

In referring to a letter in a daily paper Mr. John O'Connell says:—

"Now I turn to the purely local aspect of the question, and I learn from Dr. C. Reissman's address at the conference on consumption in 1909, that '352 persons died in South Australia during the previous year,' and that 'there were approximately 1,000 consumptives living in the State during the same period.' One thousand people! Under a more awful death sentence than that of the condemned murderer who receives a just sentence! One thousand people, the majority of them condemned to a living death! Surely something can be done for them. Are the great scientific resources of the age only to be employed in forging instruments and building Dreadnoughts wherewith man may kill his brother? Are we exercised about the physical and moral wants of the people in, say, distant China, to the utter disregard of our own innocent and uncomplaining sufferers who are going down to an early grave because but few take any interest whether they live or die? We know its nature, consumption. We know its origin, we know how to combat it; and yet we sit down and do little as compared with what we ought to do. The prevention of consumption is a far greater question than even its successful treatment."

His late Majesty King Edward once pertinently asked in reference to this disease, "If preventable, why not prevented?"

Science has undoubtedly proved beyond question that this dread disease is pre-

ventable. It must be, however, a universal satisfaction that this important matter has been and is stirring the scientific world. In 1908 a great International Congress was held at Washington, U.S.A., dealing solely upon the anti-tubercular crusade.

In September this year another International Congress was held in Rome to consider the best means of coping with tuberculosis.

Thus it can be seen that the nations



CHILDREN'S ENCYCLOPAEDIA

PROFESSOR KOCH AT WORK IN HIS LABORATORY

are astir, and a movement is on foot to engage in more active warfare to cope with the ravages of this insignificant germ.

Definition

As a disease tuberculosis has been indefinitely known for thousands of years, but the credit is given to Professor Koch, a German scientist, who in 1882 revealed the discovery of the germ itself. Since then it has been known as the Koch bacillus of tuberculosis or consumption. The size of this bacillus or germ may perhaps be imagined when it takes 7,000 placed end to end to make an inch. At-

tacking rich and poor alike it insidiously begins its ravages chiefly during the earlier years of the life of the individual. The air passages and the digestive canal, through the mouth, are its entering portals by means of dust or infected food, particularly milk.

After ten years of thorough research, the British Royal Commission on tuberculosis recently entered its final report. One conclusion was that a large number of children were infected with tuberculosis by means of milk from cows suffering from the disease either internally or of the udder. Even adults cannot consider themselves secure from this source of infection, as the commission cites instances of lives of adults ending fatally from this cause.

Everybody is agreed that tuberculous sputum, whether entering the system by means of dust, food utensils, or direct infection from person to person, is a potent cause of spreading the disease. While thus surrounded on every side, upon an individual whose general vital resistance is good, it, however, has little effect. It is the lowered vitality of the system which readily gives way to the destructive action of the germ. Hence there are two conditions which must always be present for the development of the disease; one, the germ, and the other an individual with lowered resistance. In other words, the *seed* and the *soil*.

How to Combat Tuberculosis

As it is a matter of impossibility to render forever non-existent the bacilli, there only remains one course by which the individual may safely resist its attack, and that is the proper care of the body and the utilising of those forces detrimental to the bacilli, either at large or in the body itself. Two of the greatest forces at our command are fresh air and sunshine. There is no necessity to travel abroad to seek these. No better climate can be found than that of Australia. It is not a question as to *where* to live, but *how* to live.

Sunshine will kill the tubercle bacilli in a very short time when exposed to its direct rays.

Temperance in all things and an abundance of good food reinforces the powers of resistance and endurance of the body. The bacilli lurk in dark, ill-ventilated nooks and crannies of houses, factories, offices, etc. It must be fought in its suspected haunts.

Means of Infection

The fact is beyond question now that tuberculosis can be communicated from animal to man either by means of flesh eaten or milk drunk from the diseased cow. And the milk will contain the germ if the animal has internal disease without necessarily having diseased udder. This, therefore, should call for more stringent inspection of dairies and slaughter-houses and condemnation of the entire carcasses where animals are so infected.

The question of protection of the public, as is enforced in the event of all infectious diseases, should precede all others.

Quoting from the *Adelaide Advertiser*, July 31, the editor comments upon the opening meeting in London of the Conference of the National Association for the prevention of consumption, by Mr. Burns. He says:—

"Still the prospects are decidedly hopeful, for public interest is gradually being awakened in the question of preventing the spread of phthisis (consumption), and to prevention rather than cure. Authorities are looking for the eventual extermination of the bacilli which most students believe to be primarily responsible for consumption. The society Mr. Burns was addressing has played an important part in the spread of practically useful knowledge on this subject. By circulating instructive literature and urging the importance of sanatoria in the treatment of afflicted persons it has made multitudes acquainted with the first principles to be observed in the war against the great destroyer of human life."

A. V. H.

(To be Continued.)

DR. EDIS says: "Infant mortality is mainly due to two causes—the substitution of farinaceous food for milk and the delusion that ale or beer is necessary as an article of diet for nursing mothers."

The Evil of Intemperance

ALCOHOL is a member of the narcotic family associated with ether and chloroform. We all know the effect of the two latter—there is first a paralysis of coordinate or connected thought or right judgment, then a paralysis of motion and sensation. The man who takes alcoholics passes through the same stages, according to the amount he takes and his susceptibilities. When giving chloroform I have had patients say things which in natural life would be foreign to their thoughts and their whole life.

In a criminal court recently a solicitor pleaded for mercy for his client from the standpoint that one glass of intoxicating liquor made the prisoner like a mad man and incapable of judging rightly in his actions. The judge replied that the man's responsibility for the deed began at the moment he entered the public house and placed the glass to his lips.

Another case came up for trial for a long list of crimes, and the judge committed the prisoner to an asylum, saying that constant drinking had produced such a degeneration in the mental calibre of the prisoner that he was quite incapable of discerning between right and wrong.

A judge of Philadelphia says we can trace four-fifths of the crimes that are committed, to the influence of rum; there is not one case in twenty where a man is tried for his life in which alcohol is not the direct or indirect cause of the murder. Looking at the criminal list for the last two Supreme Court Sessions in my own city, Auckland, N.Z., the majority of the cases have their beginning traced to intemperance.

A Lord Chief Justice of England said: "Judges weary with calling attention to drink as the principal cause of crime. But I cannot refrain from saying that if they could make England sober they would shut up nine-tenths of the prisons."

Three Presidents of the United States—Lincoln, Garfield, and McKinley—were assassinated by men on fire with whisky. Alcohol is unquestionably responsible for

this sad social condition. Solomon in Prov. 23:29, 30, pictures this state of affairs as an accompaniment to the use of one of the causes of intemperance.

Babylon, the first of the great world powers, owed its downfall to alcoholism. We read in Dan. 5 how Belshazzar, the king, made a great feast to a thousand of his lords and drank wine before the thousand, and the kingdom was taken over by the more temperate Medes and Persians. The same cause resulted in the downfall of Greece and Rome. It was at a birthday banquet after surfeiting and drinking that Herod granted the head of John. The cruel Nero sat at table from midday to midnight. The reign of the Cæsars was one round of debaucheries and gormandising; drunkenness and cruelty are always comrades.

Coming to the present time in this world's history, we find that the United States sees the necessity to make a study of "Waste of its National Vitality." Professor Fisher who was appointed to make the study begins his report by the startling statement that *over 600,000 human lives are needlessly sacrificed* in the United States every year. The reason given for this great mortality is that there is an early wearing out of the vital organs due to excesses in eating and drinking; in short, intemperate living and strenuous life.

It has been my privilege to examine a large number of applicants for life insurance, and these companies, which make a business of estimating men's lives and can only make money by making a correct estimate, often send printed instructions to their medical examiners reading somewhat as follows: One of the most important functions of the examiner is, without giving offence, to find out and report what the subject's practice in the matter of the use of alcoholics may be, and this not in vague and worthless terms, such as—temperate or moderate, but in specific statements—what, how much, and how often. Dr. Thom, in M. S. Senate document, published in 1901, makes the following statement: Insurance companies expect an otherwise healthy

man addicted to beer-drinking will have his life shortened from forty to sixty per cent.

According to official statistics for Germany in 1900, in Berlin alone 800 persons are annually treated by medical men for delirium tremens.

A leading English physician recently declared that the use of alcoholic liquor caused 140,000 deaths in Great Britain annually.

The *English Watchword* says that there are 1,000,000 paupers on the rates through drink. Japan with the same pauper laws—a country of about the same area and population—reports only 25,000 to England's 1,000,000. To me it was of interest to think of the difference in diet. We know the prevailing diet in England; in Japan the chief food consists of rice, pulse, fruits, roots and herbs. Looking back over the record of the nations and comparing the diets of England and its ally, the words of admonition as given in Prov. 23:1, 20, by the Bible's wise man are of particular interest. "When thou sittest to eat with a ruler, consider diligently what is before thee." "Be not among winebibbers; among riotous eaters of flesh." Solomon recognised a fact which would be of great use to the modern temperance reformers, viz., the close relation existing between the use of flesh meat and alcohol. Paul, in speaking to the church in Rome, which would be influenced by the life of the Cæsars, seems also to recognise the same fact in his epistle to the Romans 14:21. Paul, writing to the Corinthians, definitely takes a stand. 1 Cor. 8:13.

Food Reform Essential

The intemperate have made the remark that the remedy lies not so much in taking the drink away as in taking away the terrible thirst. One old man apprehended in Auckland for drunkenness had just returned from Bell's Island. This is given not as an exception, but has occurred before. I may say Bell's

Island is under the control of the government but established by the Salvation Army as an Inebriates' Home. The usual diet prescribed by the Army is non-flesh, but on Bell's Island the State uses a flesh diet. My experience at a large hospital or sanitarium which uses only a non-flesh diet is that patients coming there who previously smoked and used stimulants found much to their surprise that the desire was gone. Those who might come there to drop the alcoholic habit were always placed on a strict non-flesh diet, with the result that the desire for alcoholics left them. I remember one case which seemed to be a failure. On looking for a cause it was found that he was going into the city and partook of flesh foods. A nurse was placed with him and the patient strictly watched, with the result he was soon free from the craving.

Salvation Army Homes in England report that since using a strictly non-flesh diet sixty-five per cent. of the patients are permanently cured, whilst the report of a County Council Reclamation Home states that out of twenty-six patients discharged only twenty-seven per cent. appear to have been reclaimed. Seven probable cures at the cost of nearly £200 each.

The warden of Hillsboro' House (Staff-Captain Helen Hudson) wrote on May 31 as follows *re* food reform: "I am glad to assure you that since I started this two years ago in the House for Female Inebriates there has been a marked and rapid change for better in both inmates and workers, including myself. As you may imagine, our cases come to us absolute physical wrecks in most instances, and in the past it has meant bed and medicine for weeks and even months before they could be pulled together, but since adopting this diet they are up and about in less than a fortnight—the worst of them—many are much better in a day or two."

The subject of food reform should always be presented in conjunction with temperance reform. P. M. K.

Stimulants

TO CALL a drink or a food a "stimulant" is, from the popular standpoint, to give it a bad name. Many so-called stimulants certainly are harmful, but the harm does not reside in the simple stimulating property. Stimulants pure and simple prevent stagnation, they help us to make use of the dormant energies of our beings, and consequently are good and healthful. It is often pointed out that stimulants exhaust the body by using up its reserve forces. This, however, is not the case with pure stimulants; there can be no loss from the burning up of our fuel as long as we keep up the supply; a simple stimulant will create appetite and improve the powers of assimilation as fast as it burns up the stored-up forces of the body, and thus, as long as suitable and sufficient food is provided, can only result in good. We would find no fault with such stimulants as alcohol, tea and coffee if stimulation were their only quality, but unfortunately their stimulating qualities are more than counterbalanced by their depressing and poisonous properties. Nature's stimulants are general: they improve the whole system, for while they stimulate the brain to active work by using up its stored-up energies, they also stimulate the appetite and the power of assimilation. Artificial stimulants on the other hand are only partial stimulants, they exhaust the energies of the brain without making good the fuel they burn up, and what is worse still they actually introduce products into the system which are in themselves poisonous. Tea stimulates for a time the brain cells, but through the tannin and other ingredients it contains, it depresses the appetite, retards digestion and lessens the powers of assimilation.

The immediate effects of artificial or partial stimulants may be pleasant, but the final result is depression. Even the immediate effect is often deceptive. Alcohol for instance is not a stimulant to mental activity, it simply paralyses the higher nerve-centres of control, and

allows the lower nerve-centres to run riot. The heart will beat more quickly under the action of alcohol, but it has less real power. A quick pulse is not a sign of strength, but a symptom of weakness and disease. A true heart tonic will slow the action of the heart, but alcohol quickens it and lessens its force. "Wine," says the Scripture, "is a mocker," and this is also the verdict of science. A man will certainly talk more rapidly after taking a moderate amount of alcohol, and he will often say things he would not have said had he not been under its influence, for the higher controlling centres of the mind have been benumbed. Many have the idea that they can think more quickly under the influence of alcohol, but this is also a "mocking" property. Lauder Brunton after describing some experiments with a very ingenious "Apparatus for Measuring the Speed of Thought," writes:—

"Effects of drugs.—These processes are all influenced by drugs, and one of the most common drugs by which they are influenced is alcohol. Alcohol increases the reaction time, the time for discrimination, and the time for decision. It makes all the nervous processes slower, but, at the same time, it has the curious effect of producing a kind of mental anaesthesia such as I mentioned before, so that these processes seem to the person himself to be all quicker than usual, instead of being, as they really are, much slower. Thus a man, while doing things much more slowly than before, is under the impression that he is doing things very much more quickly. What applies to these very simple processes applies also to the higher processes of the mind; and a celebrated author once told me that if he wrote under the influence of a small quantity of alcohol he seemed to himself to write very fluently and to write very well, but when he came to examine what he had written next day, after the effects of the alcohol had passed off, he found that it would not stand criticism."

Again, alcohol makes us feel warm when we are really cold. The blood-vessels of the skin are kept contracted by a special set of nerves and this is particularly noticeable in cold weather; it is in this way that the heat of the body is conserved. Alcohol paralyses these nerves and the blood-vessels consequently dilate, much blood is exposed and the loss of heat is consequently great. The dilatation of the blood-vessels is accompanied by a sensation of warmth, for the sensory nerves of the skin become surrounded by

increased quantity of warm blood, but the system generally is much colder, for the warm blood is drawn from the internal organs, where it is so much needed, to the skin, and there its heat is quickly lost and the cold blood is carried back again to the vital organs of the body. Thus what appears to be a stimulant to the partaker is really a depressant.

Nature's stimulants are true stimulants, they are without "mocking" qualities. If

tonic properties of cold water. The shower bath, the short plunge or the cold sponge will stimulate every organ and tissue of our bodies. All who accustom themselves to these tonics can testify to their great beneficial results; the skin responds with a general glow, the breathing, the circulation and the digestion participate in the stimulation, the waste products are driven out of the tissues, the "cobwebs" are dissipated, and there is



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WATTLE-GATHERING IS A GOOD STIMULANT FOR APPETITE

we are cold nature will let us know the fact, and if we do not interfere with her she will provide the remedy. The natural effect of cold is increased heat production in the internal organs of the body, and the using up of the stored-up food in the tissues, an increase of appetite, improvement in digestion and greater power of assimilation of food taken; but alcohol has exactly the opposite effect. We all recognise the stimulating effect of washing the face and hands in cold water on rising of a morning; the dormant energies of the brain are quickened, and drowsiness quickly gives place to activity. We would receive great benefit if we made more use of the

a general sense of well being. The writer has seen wonderful results from the use of cold water even in confirmed invalids. One of the best, if not the best, tonics for a failing heart in sickness is the application of cold water for short intervals, but frequently in the region of the heart.

With some the system does not so readily respond to the cold, and depressing rather than stimulating effects ensue. These cases, however, are in the minority, and often if the shower bath or the plunge cannot be tolerated, the cold sponge will produce the desired result. If the system has not sufficient vitality to respond even to the cold sponge it will do so, if

previously warmed up with a good hot sponge. Stand in hot water, sponge the body quickly with it, and finally use the cold water. A hot shower followed immediately by a cold one is a good procedure for those who have the conveniences. Cold applications should be made directly after rising from the warm bed, and this will often render the primary hot applications unnecessary. It is a mistake to potter about and thus lose heat before using cold water. The stimulating effects of cold applications can be greatly increased by friction from a rough hand, or exercise such as chopping wood, a smart walk, or the use of the dumb-bells. Perseverance in these measures will undoubtedly result in improved digestion, a removal of constipation, and increased general health and happiness.

A cold, dry climate is healthful because of its constant stimulating action on the body; every organ of the body is kept active, producing increased heat, and this necessarily means that more food is required, and consequently the appetite is improved, and with the appetite the power of digesting and assimilating the food taken. In warm, moist climates the stimulation is absent, and the inhabitants are consequently less vigorous and energetic. The warm, moist climate is beneficial to the growth of fruit and vegetables which grow in abundance with but little cultivation on the part of man. Nature thus compensates to some extent the man for his less stimulating environment.

We should ever remember that nature's tonics are general, they improve the condition of the whole being: but artificial stimulants such as alcohol, tea, coffee and the various drugs are partial in their action; while they stimulate one organ they depress the action of the others. There is no danger of overwork with natural stimulants, but with the artificial there is great danger, for the more the one part is stimulated the more the other organs are depressed. Digitalis will help the action of the heart, but it interferes with the digestion; opium and its preparations will relieve cough, but they lock

up all the secretions of the body; tea will stimulate the brain, but through the large percentage of tannin it contains it lessens the secretion of the digestive fluids all along the alimentary canal, producing many forms of dyspepsia as well as constipation. Alcoholic drinks give a wholly false sense of stimulation, their action being more that of paralysis than stimulation.

W. H. J.

The Rice Cure

By David Paulson, M.D.

DR. L. DUNCAN BULKLEY, the noted New York skin specialist, has recently called the attention of the medical profession to the very surprising results that he has obtained in eczema and other severe inflammatory skin troubles by restricting the patient absolutely to a rice, bread, butter and water diet for five days.

After two or three days of this diet the change that is produced in the patients is sometimes astonishing. Dr. Bulkley also forbids the patient to use coffee, tea and chocolate.

It is well for our readers to be informed that living almost exclusively on rice for a few days is equally beneficial in some forms of sick-headache, hyperacidity of the stomach, auto-intoxication, and other digestive and nutritional disorders.

It may be eaten in the ordinary cooked form with a little cream added or it may be made into cream rice pudding, or better still, the toasted rice flakes which are now on the market, or toasted rice biscuits and butter.

Stewed prunes or any other sub-acid fruits, raw or cooked, can be used very advantageously at the same time. After a few days the diet may be extended, but it is well to continue for some time to make a liberal use of rice in the daily dietary.

"SIR MARTIN CONWAY, the well-known mountaineer, says: 'Alcohol doesn't aid you in the least.' The first climber to reach the summit of Mont Blanc, Jaques Balmat, was an abstainer."

Measles and Its Treatment

DURING last winter in England an epidemic of measles occurred, which was especially severe in Sheffield. Reports from that city told of 8,000 cases with a death-roll of 300 in three months. From this it is quite evident that in Sheffield measles must have caused some apprehension; but, as a rule, the disease is looked upon as a mild one. We find from experience, however, that it is sometimes very severe, and becomes dangerous to life or subsequent health upon the occurrence of certain complications. When introduced as a new disease, as has happened in the Pacific Islands, it becomes extremely fatal. Cases have been reported amongst the Maoris in New Zealand in which the results have been fatal, particularly when the native has been placed in cold streams or baths, thus preventing the appearance of the rash.

Measles may be described as an acute contagious disease characterised by a sudden onset, marked by a rise of temperature— 101° to 104° —catarrhal symptoms, chilliness, sneezing, and appearance of cold in head, watering of eyes and nose, light cough, slight hoarseness, intolerance to light, restlessness, headache and loss of appetite, reddish mottling of palate and roof of mouth. The eruption appears on the *fourth* day (less frequently on the third) first on the cheek, forehead and chin, and spreads rapidly over the whole surface. This eruption consists of small red papules which increase in size, become rounded, and are slightly elevated and closely arranged over skin. The disease reaches its height in thirty-six or forty-eight hours, and after two or three days rapidly fades away. With the disappearance of rash the temperature decreases and catarrhal symptoms also decline; with the convalescence we have a desquamation, or shedding of very fine scales.

If no complications arise, the convalescence is usually complete by the tenth or twelfth day.

We should isolate the patient for three weeks from onset, and the quarantine should extend fourteen days from exposure.

The complications consist usually in an exaggeration of the existing catarrhal inflammations. They may affect the eyes, nasal passages, throat, larynx and chest. Inflammation of the middle ear also occurs, sometimes causing deafness.

The patient must be protected from draughts of cold air—keep the temperature of room at 68° to 72° F. The dread of exposure of eyes to bright light makes it necessary to keep the room slightly darkened. It is well to see that the rash is not delayed in its appearance. Permit the patient to drink freely of plain hot water, give hot baths and hot blanket-packs. The hot blanket-pack may be given by wringing out thoroughly a blanket which has been immersed in hot water. Permit patient to lie down in this and have it applied round the whole body. Over the wet blanket apply a dry blanket. Sometimes it is necessary to place a number of hot bottles just outside the blankets. After free perspiration remove the blankets, and sponge the patient with warm water. See that the bowels have been emptied, preferably by giving an enema.

For inflammation of nose and throat, hot compresses may be applied to nose, and also to throat. Inhalations of steam and vapours of aromatic oils also prove useful. The eyes may be bathed with a boracic lotion, and the edges of the eyelids may be touched with vaseline. Complications involving the chest, such as cough and pain, can be treated with fomentations every two or three hours. Pain in region of ear can be also relieved with fomentations.

The diet may consist of an abundance of good ripe fruit and fruit juices, avoid-

ing the seeds and skins; grains and gruels of various kinds, zwieback, toasted breads, buttermilk made from tablets, whey, junket, beaten-up egg and milk, malted milk, malted nuts, etc. Children of delicate organisation and of families liable to glandular enlargement or pulmonary consumption, must be nourished and well cared for until full health is regained.

F. K.

Sandfly Fever

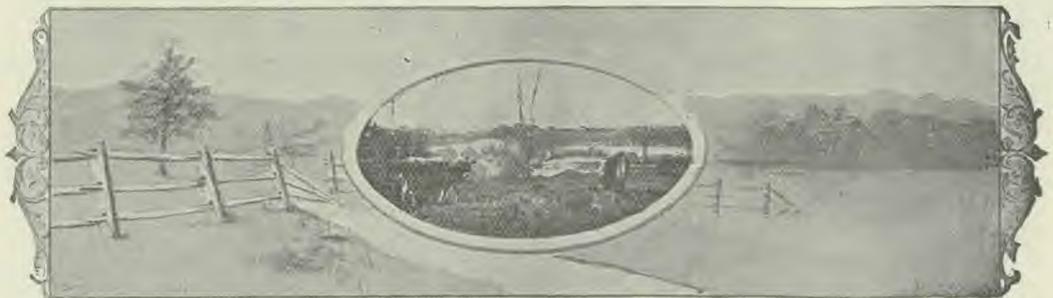
THE number of diseases which are known to be due to the bites of insects is being constantly increased. The well-known three-day fever of India, Egypt, Malta, and other warm countries, has been proven to be due to the bites of sandflies. Outbreaks of this fever have occurred for many years past among newcomers. In military camps more than half a regiment has been attacked shortly after arrival.

The onset of sandfly fever is usually sudden, though the fever may be preceded for a few days by a feeling of tiredness and discomfort. Chilly sensations are common, but the distinct chill of malaria never occurs. Common symptoms are giddiness; violent headache which is confined to the brow and eyes, and is exaggerated by movements of the head;

pain in the back and legs, and muscular stiffness and soreness. The patient is drowsy, yet cannot sleep. The face is flushed, the eyelids swollen, and the eyes bloodshot. The temperature rises to 101-103° within a few hours time, but the pulse rate does not increase to more than 80. There is nausea, loss of appetite, the tongue is coated, and vomiting and diarrhoea occur in some cases. Other symptoms are soreness of the throat, dryness and puffiness of the skin, especially of the face, with redness over the neck and chest.

In order for sandflies to convey the infection to others, they must bite the patient during the first forty-eight hours of the illness. After having sucked the blood from such a patient, the sandflies are infective for seven to ten days. Healthy persons who have been bitten by infected sandflies develop the fever within three to seven days. For the prevention of the disease it is necessary to isolate the patients suffering from this disease in sandfly-proof nets during the first forty-eight hours of their illness. Further means of prevention consist in the destruction of human and other excrement, the spraying of latrines with paraffin twice weekly, and the abolition of all other breeding-places of these insects.

F. C. R.



GENERAL ARTICLES

Have an Ideal

WHAT we make of ourselves depends upon the ideals which we habitually hold. Our lives are shaped upon our mental models. If these be high, the life is lofty; if low, it grovels. Man is no better than his ideals. The stream cannot rise higher than its source. Our work can never overtop our ideal, our ambition. It is a great thing to keep the constant suggestion of high ideals, of things that are grand and noble in human achievement, in the mind. It tends to make us love the right and hate the wrong.

There is one thing we ought to hold in such sacredness that no consideration could induce us to dilute it, and that is the quality of the life, the quality of our ideals. Whatever else we are careless about, we cannot afford to carry through life low ideals, second-class personalities or demoralised mentalities. However humble our homes or ordinary our environment, we should keep the quality of the life, the personality, at the highest possible standard. We should allow nothing to deteriorate it.

Yet most people are careless and indifferent regarding the quality of their lives. There is a slipshodness in their living, a slovenliness in their mentality, which tend to deteriorate the quality of the life and make it cheap and commonplace.

Whatever your career, guard your ideal as the apple of your eye, the pearl of great price; for everything depends upon

the direction in which that points. If it points downward, no amount of money or influence can redeem you from mediocrity, or even save you from a degraded life. Man is so made that he must follow his ideal. He cannot go up if his ideal points down.

When the taste has become vitiated or demoralised by bad literature or vicious companions, there is no standard by which we can gauge the quality of life, and quality is every thing. Quantity means little when compared with quality.

Someone says: "The ideal which one possesses, or which possesses one, comes to control him so as to lift him up or drag him down, in spite of all other influences leading in another direction. Therefore, it becomes extremely important that a man's ideals should be worthy ideals, uplifting him in his aspirations and endeavours."

What do we not owe to people who have raised the ideals of those about them



BENJAMIN FRANKLIN

by trying to do something better, to live a little finer life; who were not content to jog along in the same old rut, but were determined to get up higher?

I have known a girl, inspired by the lives of great men and women about whom she had read, to change the atmosphere and ideals of the little village in which she



DISRAELI

lived, as Benjamin Franklin changed the atmosphere of the entire printing establishment in which he worked while in England.

We little realise how much we are influenced by the example of others; how the great personalities whose lives we touch mould and stimulate our characters

and modify our ideals.

A great many people who live in out-of-the-way places and sparsely-settled communities are only partially developed, and are never thoroughly aroused, because of the lack of inspiring and ambition-arousing examples in their community.

It is not difficult to predict the kind of men and women that will develop from children who live in a vulgar atmosphere, in an environment of vice, who rarely hear anything inspiring or see models of nobility; whose lives are filled with everything that is degrading and deteriorating. On the other hand, we can easily forecast the future men and women who will develop from children reared in homes of refinement and culture, who breathe the very atmosphere of intelligence and enlightenment, who live in the midst of models which inspire, elevate, and ennoble. The mind is formed by what it feeds on. It must follow the character of its daily food.

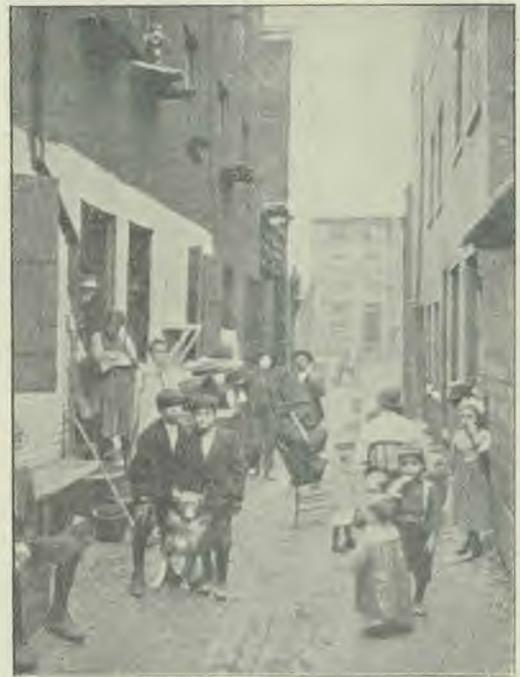
I have known unusually bright, promising boys to lose their ambition almost entirely when living in a vicious atmosphere and associating with those without

purpose in life except to have a good time. Before they realised it their ideals had become tainted, their aims warped and their ambition dimmed.

The Contagion of an Inspiring Ambition

There is something positively contagious about an inspiring ambition. Think of the influence and the power of being a living model, of igniting the spark in thousands of young lives, of awakening the ambition to be somebody and to do something in the world! On the other hand, what a curse to be a degrading model, to have a deteriorating influence!

Anything which will lower our standards or ideals will cause an irreparable loss. One of the commonest and most unfortunate things that can happen to a human



PLAYGROUND OF SLUM CHILDREN—UNHEALTHFUL AND DEGRADING

being is the ruination of the taste for better things. The taste should be kept sensitive, delicate, and refined, so that the individual will be able to appreciate the best and highest possible to him.

The moment a man stoops to the lower, he cannot maintain the higher; if he continues to do the lesser, he will render himself more and more incapable of doing the greater, because his ideals will invariably drop to the level of his acts. Disraeli said: "The youth who



A VERY COSY CORNER IN A HOME OF CULTURE

does not look up will look down; and the spirit which does not soar is destined to grovel."

How true it is that without a vision the people perish! Where the pursuits are sordid, where the highest aim is the all-absorbing ambition to make money, everything that is finest, cleanest and most beautiful in life evaporates; the nature coarsens. This is the threatening picture of to-day.

The vast resources of the country and great commercial prizes are so tempting, so fascinating, that by the time they are ready for active life our youth are so saturated with commercialism, so ambitious to coin every bit of their ability, their education, their influence, their friendships, almost everything into dollars, that all else is neglected.

They lose their ideals which are the true test of character.

The ambition of the old masters was to embody their ideals upon canvas, no matter how long it took or what it cost. They could not bear to associate money

with their ideals. The canvas or the piece of sculpture was regarded as the child of the brain. There was a kinship in it. They loved it. They could not bear to part with it, even for the necessities of life. It was too precious to sell.

The true artist transfers to the canvas the ideal which haunts his soul. Everything that he has seen, read and experienced is incorporated into his masterpiece. No pains, no study, no devotion are too great to give to the child of his brain. What are hunger and criticism to him! He sees immortality in his canvas. His idea is becoming tangible. He does not need the praise of the world, for there is an applause within which is infinitely more satisfying. He is in touch with Divinity. He can bear up under anything but the desecration of that holy passion within him. Let others chase the dollars, let others crowd and jam in the selfish world, and live the strenuous life for that which perishes. He eats bread of which the world knows not; he slakes his thirst at the very fountain of life.

In every really successful life, there are some principles which must always be put before every other consideration, whatever occupation we adopt. The ideal should be kept high, clear and clean of all contamination or commercialism. It should not have the least suggestion of the dollar taint. It should not be warped or twisted by influence or by immediate prospects.

Whatever the tools with which we work, we can all be artists. We can follow the voice that calls us higher, we can do the best of which we are capable.



ABRAHAM LINCOLN

Something More Sacred than Money-making

Running through the noblest characters of the world, there is a great backbone of purpose. We feel the timber of their manhood; the stamina of their character. We feel that regardless of their vocation, there is a great moral force in them; something which they hold more sacred

a mean thing, a man whose character is beyond perjury, beyond influence for the wrong, is the greatest kind of capital, is credit in itself.

We base our confidence on character, on the man, and not so much on his mere ability to pay. Many rich men do not have half as much credit at the banks as others with a tithe of their wealth, simply



A "SWEATSHOP" IN A CITY SLUM WHERE CIGARS ARE MADE. WHOLE FAMILIES LIVE AND WORK IN THE NICOTINE-LADEN AIR OF SUCH ROOMS

than money-making or any business consideration. These characters are the salt of civilisation. We know perfectly well that it is useless to try to twist, buy or influence them. They are not for sale. They stand like the rock of Gibraltar.

The very reputation of having a moral backbone, of standing for something besides mere money-making, of being known as a man who cannot be wheedled into doing

because everybody believes in the latter. Their very names carry confidence. There is a letter of credit in their reputation. They carry it in their faces.

Lincoln once said: "Every man is said to have his peculiar ambition. Whether it be true or not, I can say that I have none so great as that of being truly esteemed of my fellow-men by rendering myself worthy of their esteem."

We are always betraying our ideals, whether high or low. They crop out in our letters, in our conversation, in our conduct. As the ideal of the sculptor "carves itself in marble real," so the great life-aim out-pictures itself in our bodies. How quickly a practised eye can tell what ideal has been working in the lives of those he sees upon the streets or meets in travelling! How easy it is to pick out the clergyman or the priest, even when not wearing distinctive dress! The face of the professional or literary man betrays his vocation, the ideals which have actuated him, because the thoughts held uppermost in the mind, which become life habits, very quickly become impressed in the face, the form, the manner.

One of the most lamentable things in our civilisation to-day is the fact that so few business men maintain the integrity of their ideals throughout their business life. Never before was there a time when there was so much winking at dishonourable methods, so much dishonesty in business and politics, or when the great leaders of men were so tempted to stoop to questionable methods. It seems as though everybody were looking for a pull, trying to get a slice of all the good things that are going, even by methods that are questionable.

The habit of always trying to do something better, to improve upon our yesterdays, the reaching-up habit, the habit of aspiring, is of untold value to those who would make the most of themselves. The mind that constantly aspires, that perpetually yearns for a larger growth, a completer life, will not be forced to look back upon a deformed and hideous life.—*Dr. O. S. Marden, in Success.*

OLD age is a bogey man of which we are all so afraid, and yet go to work to-day and count up the number of your friends who have died of old age, and you will find that it is a pitifully small number. This means that we should fear disease more than old age and take rational means to avoid it.

Making Styles by Law

IN at least three States of America, bills are being considered prohibiting the wearing of the harem skirt within their borders. California, Tennessee, and Illinois have been threatened with such legislation. Thus the craze for legislation on every conceivable subject reaches sublime heights, says *Success Magazine*. It seems unlikely that women will need the restraining hand of the law to prevent their taking up with the new fashion; on the other hand, it is not certain that the law would restrain them if they should decide to adopt the Oriental costume. One of the few good things that can be said for prevailing women's fashions is that they are not made by legislatures.

The difficulty of enforcing edicts against the long and murderous hatpin is an example of man's futility in such matters. It seems impossible to have women fined or arrested for wearing them, no matter what the statutes say. In Budapest, the police have solved the problem by confiscating the offending pins and sending the offenders home with hats grasped tightly in their hands. The room in the police station where the trophies are kept is an arsenal of dangerous feminine weapons.

To nail your bedroom window shut is to drive a nail into your coffin.

ONE of the latest marvels of surgery is the successful transference of part of an eye from one living person to another. In New York recently the cornea of a woman's eye which she was forced to lose by an accident, was grafted on to the eyeball of a Chinaman. Later it was found necessary to reshape the pupil. In a Philadelphia hospital, the cornea of a young man's eye who was made blind by a flying piece of steel, was transferred to the eye of a woman who had been blind from infancy. After twenty days it was found that the woman could see for the first time in her life.

The Latter Half of Life

Herbert W. Fisher

THIS is a significant phrase—"the latter half of life." Before we can effectively combat the enemies that threaten us, we must find these enemies out with an identifying finger; and from this phrase—"the latter half of life"—an inkling of their identity may be had. *The ills of the latter half of life are the accumulated consequences of the small misdeeds of the earlier half*, the accumulated effects of those peccadilloes of private commission and private omission in whose defence our vanity makes us so alert and so resourceful in argument. The respiration of a very little impure air eighteen times a minute eighteen hours a day for twenty years; a few foods preserved by injurious substances; teeth irregularly brushed; stuffy sleeping-rooms; living-rooms excessively upholstered; carpets full of dust; domestic atmosphere at once motionless, furnace-dried, and kept at high temperature; clothing impervious to sun and air; insufficient baths; insufficient exercise; late hours; overwork; over-eating; under-drinking (of water); eating and drinking together instead of separately; and patent medicines; not to mention, in the case of woman, the strangling of her vital organs by the stylish harness of society—these are a few of those so-called "negligible transgressions," whose cumulative effects are beginning to be realised.

The interrelations of the various parts of our plastic bodies is so intimate that perhaps no part may escape the consequences that come of abusing another part. It was once thought, for instance, that polluted air did no damage but to the lungs; now fresh air is prescribed for nervous prostration. It was once thought that sedentary life and round shoulders produced nothing but flabby muscles—surely not a great calamity to him who has no use for firm ones; now it is be-

lieved that this relaxation, especially of the abdominal muscles, leads to so-called portal congestion, or blood-stagnation, and thus, eventually, to nervous prostration. The effect of bad teeth was once thought to begin and end in the teeth; now it is observed that the teeth drop poisons into the well of the stomach, and even that the pampering of them with soft foods defeats the growth of the jaw, and through the jaw holds down the expansion of the skull, including the cranial cavity. Tonsillitis, too, is now supposed not to end in itself. Besides spreading inflammation in its own neighbourhood, it may lead to inflammation of the joints; it may contribute to appendicitis, to peritonitis, and to valvular troubles of the heart. . . .

As long ago as the days of Columbus, the virtue of this philosophy of "little reforms" was put to the test in the field of unassuming health by that quaint character, Louis Cornaro. By an early career of dissipation this man had, before the age of forty, been brought so low that his friends despaired of his life. But he was a man able to read his warning at the eleventh hour; and solemnly dedicating the remainder of his days—what little remainder he dared hope for—to consistent, devout, unswerving temperance—a temperance that included all things, but related especially to food—he not only recovered his health, but went on to number his years to more than one hundred. He even found, in his age, more relish for life than in his youth; and, for the salvation of his fellow-men, he wrote several treatises upon himself, full of quaintness and vanity.

Mr. Horace Fletcher, in our own day, is another man who made a miracle of common sense. An athlete in his youth, at forty he was a wealthy man of the world and a physical wreck—so much so

that he could not walk briskly without gasping for breath. When, at the age of forty-four, this man was rejected for life-insurance, he, like Cornaro, took counsel with himself. The ingenious reasoning by which he determined to stake his chances thenceforward on the principle of improved mastication, need not be rehearsed. Suffice it that, by dint of its application, he not only won his insurance, but, not content with becoming a merely average risk, went on heaping up the measure of his vitality until, on the fiftieth anniversary of his birth, if you please, he was able to outstride an experienced and youthful wheelman, covering on that day not the stipulated one hundred miles merely, but keeping right on until he had covered one hundred and ninety. On the following day before breakfast, in order to test the supposedly exhausting effects of so stupendous an achievement, he

rode fifty miles! Eight years later, on the "ergometer" in the Yale gymnasium (an endurance machine, designed to test a single muscle), he broke the record which had been established upon that machine by the youth of the university. Nor was his superiority measured by ten per cent. merely, but by one hundred per cent. In the scene of this second achievement there were dramatic possibilities: in a little chamber of the gymnasium, the grey-headed man of fifty-eight, seated and quietly pumping at the weights; the cautious director repeatedly warning him against allowing

his pride to carry him too near the mark that had been set by younger competitors, but at last, as that mark drew steadily near, rushing out into the corridors and haling in the callow spectators to see the mark actually reached; and the spectators, once in, remaining rooted in wonderment to see the mark reached a second time. Whereupon the old man, though

still far from exhausted, saw fit to stop.

If you find these achievements in improving physical efficiency incredible, remember that they are no more incredible than the improved efficiency of human labour brought about by scientific management.

The nearer we come to ourselves, the more startling has always been and always will be the evidence of the opportunities we have missed at our very doors. Cornaro and Fletcher did something more than overcome pathological handi-



HORACE FLETCHER

caps. The level to which they eventually rose was higher than that from which they had originally declined. And a recent scientific investigator, having profited by their example, conceived, with infallible logic, that the level from which men do habitually decline—the average which we call normality—is not normal at all, but might be set much higher than it is, if men would but apply, in advance, the same principles which, applied afterward, overcome pathological handicaps. This man, being a mathematical idealist, set about the demonstration of his theory in such exact wise as would leave no

escape from his conclusions on the ground of prejudice. He determined, as is always the part of wisdom, to back up theory with statistics. And he created his own statistics through experiment. Selecting nine so-called healthy students—but not athletes—out of Yale University, he first kept them for a time under their usual regimen and measured their endurance, taking every precaution against possible *under-estimate*. He then, for five months, gave them the benefits of Mr. Fletcher's practice, and at the end of that period again measured their endurance, this time taking every precaution against possible *over-estimate*. Besides the precautions against under-estimate at the beginning and against over-estimate at the end, an additional precaution was taken all through the experiment: the men were instructed not to alter their habits in any other respect than just that of mastication—not to exercise more—not to smoke less. Under this regimen eight of the nine men made progress in endurance. And what was the measure of their progress? More than ninety per cent. Some of the men even gained more than one hundred; ninety was below the average, after the investigator had rejected the benefit of every doubt. As for the ninth man, who did not gain, he made the exception that proved the rule; for he was the only member of the group that had conspicuously shirked the rules of the experiment.

Now note some peculiar features in this series of apparent miracles.

First, they were all wrought by a single "little reform."

Second, the earlier in life the ounces of cumulative prevention were thrown in, the less conspicuous to the outward senses, but not the less extensive in fact, were the pounds of advantage accumulated. Mr. Fletcher had no difficulty in realising his salvation; but it took measurement and record to prove to the eight young men how enormously they had benefited.

Third, the advantage reaped was not strength, but endurance—the less picturesque but the more useful quality.

Endurance is a thing which may be capitalised. It represents a gain in longevity. It represents a gain in current capacity. It is a pledge of freedom from future disease. It really consists in a disinfected body. It involves, above all, a gain in efficiency; that is, it enlarges the period, both in the day and in the life, for which the body and the mind will respond cheerfully to the exactions of the will. Suppose, to be conservative, that by this "little reform" you may gain fifty per cent. in endurance; that is, in the capacity to withstand fatigue. Suppose, also, to be conservative, that this gain of fifty per cent. in endurance implies a gain of ten per cent. in current efficiency; that is, in output of effort per day. Consider what that ten per cent. is worth. To one man it may mean pure gain for purposes of further income, or, if he is an altruist, for purposes of expenditure on behalf of others. To another man, it may represent just that margin of reserve power which he has always wanted for a buffer between chronic fatigue and cheerfulness.

Whatever promotes health tends toward reserve power; and reserve power tends toward everything that makes life worth while—everything that either constitutes life or adorns it.—*World's Work*.

You Have No Right To Be Sick

It has been estimated that one-eighth of the population suffer from some malady or other, says the editor of *Vitality*, but we presume this alludes to organic troubles. If we count those who suffer from nervous ailments and who carry about with them aching limbs and a disturbed mind, but succeed in getting through their day's work—well fifty per cent. would be a very meek figure. What all this means to a nation, its bad effect upon the health of those who are well, must be very great. Unfortunately, sickness is now looked upon as an act of God, and those so afflicted are considered martyrs and demanding the sympathy of others. It is of no use our theorizing

about this matter; chronic invalidism is well known to the sufferer to be wrong. God never gave Adam a crooked carcass of a body full of disease and pain; every sufferer knows this—it's a bitter experience.

You certainly have no right to be sick; sickness itself is evidence of transgression, and goes far to prove you have in some way or other violated nature. More than this, *we can generally trace where we have transgressed*. Admitting this, we cannot but see that, when we are willing to obey nature, and, as far as we can, live a natural life, we then prepare the way for the hidden inner forces to operate for our good, we at once commence promoting health. Every step of the health-culture ladder leads to health, and shows you the wrongfulness of sickness, and we never omit to tell you *how* to alter your physical and mental state and the need of physical regeneration.

Forgetting

You can never be a perfect man until you learn the art of forgetting. On all hands we have useful books on training the memory, but what about *forgetting*? Your present anguish is the outcome of anxiety over what has happened; the horrid past of failure, fault, and fear, is ever with you. The man who knows *how to forget*, fears neither himself nor others. Memory fences in the defeated or conquered city of the mind, and holds a mortgage on the soul. If you wish to stop forgetting you must *forgive yourself* as you expect God to forgive you.

Thinking about Yourself

Too many are slaves to their thoughts, their pains and sufferings, their mental aberrations and disabilities, ever succumbing to their troubles and looking on the black side of everything, leading a life of darkness and despair, making life a dismal nightmare. Why? Have you ever thought this very attitude feeds your diseased body and mind as well as adds fuel to the mental moloch? Suppose we have to suffer, I say *suppose*, for it is *only*

a supposition, why not do it with a smile, and scorn the sympathy of others? This very act is a stepping-stone to vigorous mental health.

Not a Martyr, but a Criminal

When you seek the sympathy of others you step on to a sinking ship that presently will suck you under. The very sympathy that well-meaning people heap upon you, gives to the mind the very worst kind of suggestion possible, the most dangerous of any and certainly the most damaging. Turn aside from it, as a nauseous thing. Learn to look upon yourself as a transgressor of the natural laws; rebuke yourself for being sick, tell yourself you are a criminal and a wrongdoer, and the sooner you get out of such a physical condition the better. This is the kind of suggestion that will help the mind; it is a tonic of the best kind and disease cannot stand against it.

Physical Exercise

The dismal mental dyspeptic is rarely, if ever, a physical culturist, delighting in a morning tub and thirty minutes' mixed physical training. Throw your wretched thoughts to the dogs, and go in for a regular course of invigorating movements. Your blood will be sent rippling through the veins and arteries at twice the speed, your lungs improved, heart beat strengthened, and thereby the whole body, including the nervous system, improved. Finally, *remember, you have no right to be sick*.

Fatigue and Morality

Is a tired person a good citizen? What is the relation between fatigue and the likelihood of doing good social service—of living a useful life in proper relations with one's fellows? This is practically the question asked by Dr. Thomas A. Storey, Professor of Physical Instruction in the College of the City of New York. The answer depends on what we mean by fatigue. There is such a thing

as being normally and healthfully tired; there is also abnormal and unhealthy fatigue. The former, Dr. Storey tells us, is one of the best promoters and preservers of right living that we have; the latter is quite the reverse.

In abnormal or pathological fatigue, says Dr. Storey, the fatigue effects of one day are added to those of the following day. The restoration of losses is not complete. In addition there are other effects of the bad habits of physiology and hygiene which are primarily responsible for the accumulation of these same fatigue effects:—

“We have then,” says this authority, “a muscular or other fatigue combined with nervous indigestion, headache, irritability, or any other of the great variety of nervous or physical evidences of physiological derangement. That these conditions influence human conduct seems to be evident in a great many ways. There is not only apparently a close association between bad habits of living and bad moral habits, but there is also apparently a close relation between the pathology of fatigue as a cause and moral misconduct as an effect. . . .

“The association of petty vices and gross vices with chronic fatigue causes, accompaniments and effects, is fairly constant. There may be no scientifically proved causal relationship, but the relationship of association is there, . . . and we are very likely to judge facts, like people, by the company they keep.

“Our experience with the truant and unruly boy; our experience in the juvenile courts, reform schools, and penitentiary; our experience with the neurological patient and the mental patient; and our experience in general with the criminal and the suicide, all seem to point to a close association between fundamentally bad hygiene, chronic fatigue, and mental and moral irregularities and misconduct.

“The man who works each day under a severe mental or physical strain and fails to keep his physiological life in condition to make good his energy losses,

is not necessarily a criminal; he is not necessarily immoral; he may support the burden of his daily fatigue and bad hygiene with moral success. He may be only a tired, irritable, nervous dyspeptic. But such men are commonly not the best husbands; they are commonly not the best fathers, and they are commonly not the best citizens. Such women are usually not good wives, and they are as a rule not successful mothers. In such cases the standards for personal, social, business, civic, or national morals are likely not to be beyond criticism. Such men are less likely to discriminate between right conduct and wrong conduct. Such men are likely to be unwise in the selection of their modes of relaxation and rest. The clouded judgment and the dull conscience of abnormal fatigue make the choice of legitimate recreation difficult. The irritability, the restlessness, the dissatisfaction that comes at the end of the fatiguing day, and as a result of fundamentally bad hygiene, has led many a man and many a woman to search for recreation, for change, and for pleasure in places where the recreation is a further drain, where the change is for the worse, and the pleasure is immoral.”

Dangerous Advice

SOME of the advice in so-called health and physical culture magazines, says *The Healthy Home*, is not only foolish but is wicked and dangerous. In a recent number of a “physical culture” magazine an article on diphtheria says: “Do not encourage a child to stay in bed. It should be encouraged to be up and around. No matter how serious a child’s condition may be, he should be made to think lightly of it. Remember that antitoxin is dangerous and is not in any case necessary and that diphtheria is not a dangerous disease unless it is made so by the treatment applied.”

Such advice as the above is dangerous and wicked. Dr. Robinson well says that if there is a disease within the entire range

of human ills, in which rest in bed is imperative, until convalescence is fully established, diphtheria is such a disease. It is one of the most treacherous of all diseases. A mild case may suddenly become a severe one. And there are very, very many cases on record, in which the child was progressing nicely; so nicely that it or the mother thought the doctor's strict orders could be disobeyed; it sat up, or was taken out of bed—then sudden heart paralysis, and the child was dead. And here the stupid quack comes along and in his ignorance says: Do not encourage the child to stay in bed.

Do not allow the exercise experts to give you printed instructions who have no knowledge of your age, occupation or physical condition and especially the condition of the heart. Well regulated exercise is good, but the kind and amount of exercise that will cure one man will kill another.

That Tired Feeling

When We Are Tired We Are Poisoned

WHEN the body or mind gets fatigued there are manufactured within us certain poisonous products. When we rest there goes on within us a similar manufacture of antidotes. Nature provides an antitoxin to meet the toxin. But that antitoxin is not medicine as prescribed by man: it is rest, nature's own medicine which we ourselves can prescribe. Medicine taken for "that tired feeling" is a poor way of getting at what troubles us. What we should get after are the fatigue poisons. These poisons are in the body. When those poisons make themselves felt in "that tired feeling" it is nature's signal to us not to fly off to a doctor and get medicine, but to act for ourselves: to slow up. When we fail to do this, but keep on, the new poison from the new fatigue re-enforces the poison that is already in the body and we get what we call "tired more easily," and finally, by adding to the poisons by constant fatigue,

we "break down." If we live properly we will get tired just the same, but we give ourselves a period of rest sufficient to overcome the poison of fatigue.

All of us ought to get a clearer idea into our heads of just what brings about "that tired feeling." We have this feeling more often at this time of the year, which simply means that we have pushed ourselves too far during the winter, and in the absence of the exhilarating cold of the winter weather we have not the vitality to overcome the poisons in our systems. What we need is not such barbaric foolishness as a "spring medicine" or a "tonic," but simply a period of rest. We want to "let go:" relax the nerves, and give the antitoxin that comes from the rest which nature provides in the body a chance to push out the poisonous toxin which fatigue has produced. That is the only safe, sane and sure cure for "that tired feeling."—*Ladies' Home Journal.*

Leaving off the Drink

DR. RICHARDSON says: "When my mind became turned toward the action of alcohol upon the body, I said: 'Here is a crucial test about the leaving off.' I inquired at the prisons, 'Do you let these people down drop by drop, and gradually reduce strong drink?' 'No,' I found was the response. As the prison door closes, the tap closes so far as they are concerned. Then I asked, 'Do they suffer in any way?' The answer was 'Never!' And wherever I have made inquiry into discipline and life, I have never once found an instance where it could be shown that the sudden leaving off of strong drink by people was a cause of any disease or any kind of defect whatsoever."—*Selected.*

"If you can prove that it is right to sell whisky, then you cannot prove that it is wrong to kill."

The Peaceful Conquest of Disease

By David Paulson, M.D.

THE magazines and daily papers are filled with accounts of military and naval matters, but we hear but little concerning the scientific conquest of disease which has been accomplished during the last few years, and which is a thousand times more important than any military exploit could

what it is in Chicago. In other words, Panama has been transformed into a veritable health resort.

Conquering Yellow Fever

During the Spanish war, in a short time after the American soldiers entered Cuba, there were more illness and death



CUTTING SCRUB AT PANAMA TO GET RID OF THE ANOPHELES (OR MALARIAL) MOSQUITOES

possibly be. Patient investigators have toiled unceasingly and in some instances have sweat out their very life blood in order to wring from the unwilling hand of nature the necessary secrets to banish some of our most death-dealing diseases.

When the French nation first began to build the Panama Canal the death-rate rose to more than seventy per thousand. To-day although there are more than fifty thousand men at work constructing the canal, the death-rate is less than nine per thousand, which is only about two-thirds

from yellow fever than from the Spanish bullets. In previous years when yellow fever had invaded the United States the people fled before it as they did before the plague in Europe centuries ago. The United States appointed a commission to ferret out the real cause of yellow fever. It was demonstrated that it was propagated by mosquitoes which had sucked the blood of patients afflicted with yellow fever. United States soldiers volunteered to be bitten by these mosquitoes, contracted the disease, and one of the phy-

sicians, Dr. Carrol, died a martyr to science as a result of this heroic experiment.

As soon as it was demonstrated that this was the *only* way to contract yellow fever all that needed to be done was to destroy the mosquitoes; pour oil on their breeding places, and furthermore screen in the patients who were suffering from the disease so no fresh mosquitoes could become infected. And in a few months yellow fever was absolutely *banished* from Havana, for the first time during the mosquito season since any record had been kept there.

Dr. Reed, who was chairman of this commission, had years before prayed that he might in some signal way be used of Providence to confer good on his fellowmen, and his prayer was certainly answered in a most remarkable manner.



LOUIS PASTEUR

The Man Who Created a New Medical Era

"Pasteurised milk" is named from Pasteur, the French chemist who died a

few years ago. Before his day the surgical wards in all the great hospitals were always infected with pus. Nearly one-half the women who went to the maternity hospitals in Paris died from child-bed fever and other infections. To-day child-bed fever is almost unknown. Pus is rarely seen in any of our great modern hospitals.

Pasteur demonstrated that if a patient was thoroughly disinfected before operation, if the instruments and dressings were sterilised, if the surgeon and his assistants' hands were made surgically clean, then in all ordinary cases the wounds would heal promptly without any pus. The great surgeons ridiculed him, but they were finally compelled to admit that carrying out his instructions opened up a new epoch in not only surgery but

the entire care of the patient. In fact, Pasteur's discoveries have completely revolutionised medicine.

Up to Pasteur's time no one had the least idea what to do for hydrophobia, the disease following the bite of a mad dog. By the most painstaking investigations Pasteur demonstrated that he could vaccinate a dog so he could not contract the disease. But the burning question remained unsolved—would it work equally well on a human being?

About this time a boy was frightfully bitten by a mad dog. The mother, having read in the papers of Pasteur's experiments, brought the boy to him and begged to have him vaccinated. Pasteur reluctantly consented, and the boy did not take the disease. Soon other cases were similarly vaccinated, and directly the whole civilised world understood that nature had yielded up another great secret.

When Pasteur was a young man he prayed that his life might be of some signal service to humanity. How remarkably that prayer was answered I have only given you the merest hint. The great Pasteur Institute in Paris is a place which was established by this man as a place from which scientific missionaries go out on errands of mercy to study the plague in India, to study the cause and cure of the sleeping sickness in Africa, and the cholera in Egypt.

I was in San Francisco the first time the bubonic plague appeared there in the Chinese quarter. The city had quarantined the Chinese section of the city and had stretched ropes around this area and stationed policemen with clubs on the street to keep the Chinese in and to keep the others out. But by and by the scientific missionaries from Pasteur Institute discovered that it was fleas that had bitten an infected case which propagated the disease when they bit a healthy person, and that the rat was the automobile in which the fleas rode from place to place. So it must be plain to all how ridiculous it was for the policemen to try to control the plague when the rats were chasing

each other around everywhere in the streets.

When the plague appeared in San Francisco the city paid so much for every rat that was killed. They compelled the inhabitants to put concrete floors in their

beautiful illustration of how science has traced a terrible disease back to its lair.

Fighting a Disease on Its Own Ground

A few years ago nearly half the children who contracted diphtheria lost their lives.



THE SAN FRANCISCO CHINESE TELEPHONE EXCHANGE IN 1897

basements, and to raise the small buildings so that the cats could get under them and catch the rats. After they had taken these various precautions and killed something like a quarter of a million rats the plague was banished. This is another

Then Von Behring, a German investigator, observed that while most animals took diphtheria readily the horse was immune to it. He found out that the horse always has in its blood a certain amount of *anti-toxin*, which was the real reason that it

could not take the disease, and that the reason the child died was because it did not always succeed in making enough antitoxin before it became overwhelmed with the poison of the disease.

He devised a reasonably safe method of securing the antitoxin from the horse's blood and injecting it into the child to help the child out when it was short, just as we sometimes have to get milk from the cow to feed the child when its mother does not have enough for it.



THE MOSQUITO-BREEDING CHAGRES RIVER, PANAMA

A generation ago we were absolutely in the dark regarding the cause of consumption, and hence we had no satisfactory means of preventing its spread or treating it in a rational manner. But in 1884 Robert Koch, also a German scientist, discovered that it was due to the tubercular germ. Now, nurses who work in up-to-date tubercular hospitals never contract the disease, because we know that it is the patient's careless expectoration that contains the deathly germs, and that when the sputum is properly taken care of the disease is not otherwise self-propagating.

We now also know that the real cure of tuberculosis is to build up the patients' vitality; so we have them breathe plenty of fresh air, eat nourishing food, especially a large amount of fat in various forms,

and if this programme is entered into energetically, two-thirds of the early cases recover. It is one of the most inspiring conquests that science has accomplished. We have not entirely won out, but we have the disease on the run, and to-day we do not fear and dread it as we did a few years ago.

Curing a "Misery"

In the Southern States there are two million people who have a "misery" all the time. Nobody seemed to know what was the matter with these people. Some believed that they were lazy, others were certain that they were sick. Still others thought it was the climate. But finally Dr. Stiles went to work and made an earnest and careful study of this condition and he discovered that these people had a parasite, called the hook worm, in their alimentary canal, which was draining them of their life blood, and that under proper precautions it only required two shillings' worth of thymol to cure them.

He began to promulgate the light that he had discovered and the people laughed him to scorn just as they did Pasteur, and the papers circulated the joke that Dr. Stiles had discovered the "germ of laziness." Finally, at a great gathering, Dr. Stiles stood up, and with a great earnestness that brought the people to their senses said: "Gentlemen, this is no laughing matter; I have been down there and have seen these people dying by inches, and I *know* the cure."

Finally, the physicians and the most intelligent of the people began to realise that Dr. Stiles was right, and Mr. Rockefeller has recently donated a large sum of money toward exterminating this disease.

How discouraging it is to a man when he has a great truth in his soul and knows the benefit of it and knows how people need it, and yet they will not take hold of it. It only reminds us of the Master's words: "Ye *will not* come to Me, that ye might have life." John 5:40.

It is encouraging to see how some money to-day is being consecrated to save

the life of the people. Rockefeller's grandchild died from meningitis. Nobody knew any satisfactory cure. And so he established the great Rockefeller Institute in New York to study this and similar diseases. His money employs some of the world's greatest specialists, and step

thing so that *others* may reap from our sowing? You may say, "I can't do anything; I am situated where I can bless no one." You are entirely mistaken. If you can do nothing else you *can* pray for some one. Some of the *mightiest* things that have ever been accomplished in this



A PESTILENTIAL STREET IN PANAMA, AS THE AMERICANS FOUND IT

by step they are unravelling the mystery of these diseases.

Shall We Sow That Others May Reap?

We are all of us reaping a harvest of blessings from the faithful sowing of those who have gone before us. Other men have laboured and we have entered into their labours.

My friends, what are we sowing? What self-denial are we making? What earnest effort are we putting forth to sow some-

world have been done in answer to somebody's prayer.

WHEN your cat "meows" and seems restless, it is water she wants in most cases, not food. Like babies, the cat is usually overfed and left to suffer for drink. Even in ailments water is the best panacea. Science declares that not one human being in ten drinks enough water. Water for pet animals should always be within their reach.



Infantile Diarrhoea

Its Symptoms and Prevention

OF the baby's foes perhaps none is more dangerous than diarrhoea. But few parents realise the seriousness of this disease. The Registrar-General recently reported that out of 22,000 deaths from diarrhoea in Great Britain, 17,000 occurred in children under the age of one year. It will be seen from these figures that diarrhoea is as common as well as a most fatal disease of infancy.

One may naturally inquire, Why is diarrhoea so common in infants? and why does it so often terminate fatally? It

the stomach of the infant unharmed and set up inflammation in the bowel. Again, the baby's diet consists chiefly of milk, a fluid which is seldom free from bacteria,



MODERN HYGIENIC COWSHED



OLD-STYLE COWSHED, FULL OF DIRT AND GERMS

may be answered that the digestive fluids of the infant are too feeble to destroy the germs which cause the disease. These germs, which are usually destroyed by the gastric juice of the adult, pass through

and in which disease germs multiply with great rapidity. The great fatality of the disease is accounted for by the fact that young infants possess but little vitality. Diarrhoea greatly lessens this vitality, and lowers the child's power of resistance by draining fluid from the blood. The wise mother will safeguard her baby from the disease by carefully avoiding its various causes. Among these we may mention the following:—

1. *Unhygienic surroundings* are favourable to the development of diarrhoea.

The germs which cause the disease thrive on all kinds of decaying plant and animal matter. Thus excellent breeding-places for diarrhoea are furnished by dung-heaps, garbage piles, open cess-pools, foul drains, and soil contaminated by kitchen and bedroom slops. Overcrowded, unclean, and badly ventilated rooms are contributing indoor conditions.

2. *Impure milk and unclean nursing-bottles* are the immediate cause of diarrhoea in many cases. Milk is often ob-

rule, free from diarrhoea because their food cannot be contaminated by dust and germs. Bottle-fed infants would doubtless share this immunity if the milk supplied them was always fresh and free from contamination.

4. *Too frequent and irregular feeding* must be avoided if diarrhoea is to be prevented. Many mothers seem to think that a baby never cries except for food, and so feed their infants at all hours of the day and night. As a matter of fact,



The Housewife and the Fly

"Don't come into my parlour," said the Housewife to the Fly;

"There's a screen at every window, and your entrance I defy.

There are microbes in your footsteps and a crust upon your head,

Which, were it not microscopic, would fill our hearts with dread.

"You carry germs of typhoid, and spread consumption's bane;

And our sanitary teachers paint your crimes in language plain.

Don't come into my parlour; and for safety I would pray

If you walked into my dining-room upon some sunny day.

"There are seeds of vile distempers hidden in your tiny wings,

And your many feet have travelled over nameless filthy things.

You're a menace to our safety, you are powerful though small,

And the mischief you accomplish would the bravest heart appall.

"If you enter, I have poison all prepared for you to eat,

And paper spread to tangle your germ-laden wings and feet.

I will poison, trap or smash you if you do not leave my door;

For our modern sanitation will endure your calls no more."—*Adelena F. Dyer.*



tained from diseased cows, the milking process being conducted under the most filthy conditions by careless and unclean milkers. The milk may be further contaminated by improper methods of transportation, and by the use of unclean nursing-bottles.

3. *Flies distribute diarrhoea.* Flies act as the middle man between filth and the baby's food. They breed in dung, and feed on filth, and carry liberal quantities of both on their hairy bodies and legs. A single fly may carry millions of diarrhoea germs from bowel discharges left uncovered in earth closets, to the baby's milk. Breast-fed babies are, as a

the irregularly fed baby often cries because of indigestion, and if this unwise method of feeding is continued, diarrhoea is almost certain to result.

5. *Chilling* due to insufficient clothing must be mentioned as one of the most potent causes of diarrhoea. Just as chilling of the arms, neck and chest causes catarrhal inflammation of the nose and throat, so chilling of the feet, legs and body causes catarrh of the bowels, which is shown by frequent slimy motions.

We may then summarise the prevention of diarrhoea briefly as follows:—

1. Keep the house and premises clean. Attend to all drains and outdoor closets.

Throw no garbage or household slops upon the surface of the soil. Have all garbage tins covered and frequently emptied.

2. Secure the cleanest milk possible. Sterilise all milk by scalding it in a double saucepan for one-half hour. Keep milk in a cool place, and always cover it with several thicknesses of butter-muslin to keep out flies and dust. Always rinse baby's nursing-bottle with cold water immediately after use, then wash in hot soapy water, rinse, and leave immersed in borax or boracic-acid solution until required again. Boil the bottle at least once each day, putting it over the fire in cold water, thus permitting it to heat gradually. A folded cloth must always be placed in the saucepan under the bottle. These precautions will prevent the bottles being broken. Rubber nipples should be turned inside out and carefully cleansed after each nursing. They should be left in the borax or boracic solution with the bottle.

3. So far as possible keep flies out of the house by screening all doors, windows and fireplaces. Destroy any flies that may gain entrance to the house by sticky fly-paper or other fly destroyers. Protect all milk and other foods from flies.

4. Feed the baby only at proper and regular intervals, allowing nothing between feedings except water or fresh, sweet fruit juice. This should be strained, and should not be given sooner than two or two and one-half hours after a milk feeding, nor should a second milk-feeding be given sooner than half or one hour after a fruit juice feeding.

5. Clothe the infant warmly in cool weather. Particular care should be taken to keep the legs and abdomen warm, even during the summer season.

Symptoms of Infantile Diarrhoea

Infantile diarrhoea varies in degree from the ordinary simple form of looseness of the bowels, from which any young child may suffer, to the deadly cholera infantum. A point of great importance to mothers is that the milder forms of disease if neg-

lected or unwisely treated tend to become more severe.

Summer Diarrhoea

This dangerous disease is apt to begin with symptoms so mild that it is liable to be mistaken for simple diarrhoea. There may at first be nothing beyond looseness of the bowels and slight indigestion, these being usually attributed to teething or a chill. The disease, however, may progress rapidly. The diarrhoea becomes more marked; in a few days vomiting sets in, and the child wastes rapidly. There is usually some fever. In the more severe cases the attack begins quite suddenly with fever, vomiting, great thirst, and restlessness. Even convulsions may occur at the onset. The little patient soon becomes collapsed, with feeble pulse and pale face. The eyes are sunken and encircled with dark rings, and the "soft spot" on the head appears depressed. Diarrhoea now becomes a marked symptom, the motions being extremely offensive and irritating. Their colour may be yellowish, green, or somewhat brown, and later on they may contain mucus. The number of motions per day varies from six to twenty. In favourable cases the symptoms begin to abate after a few days' careful treatment, but in the more severe forms of the disease the infant rapidly grows worse, and the greatest care is necessary in order to save the little life. E. S. R.

The Treatment of Infantile Diarrhoea

IN order that mothers and nurses may successfully deal with diarrhoea, they must have an intelligent grasp of the *underlying principles of treatment*. These are four—

1. Withhold all milk food.
2. Give fluid freely.
3. Cleanse the digestive canal.
4. Keep the child warm.

"Withhold All Milk Food"

Let us now briefly consider each of these important principles. First, withhold all milk food, because milk is actually

poisonous to a child suffering from diarrhœa. In almost every case of diarrhœa occurring in bottle-fed infants, milk is responsible for the onset of the disease, and its continued administration will indefinitely prolong the attack. The reason for this is that milk is an ideal food for germs. In hot weather, germs grow rapidly in milk, sometimes producing deadly poisons without noticeably changing the taste or appearance of the milk. As the temperature of the body is ideal for the growth of germs, the production of poisons in the milk may continue in the stomach and bowels of the infant. Even though the milk be above reproach, an infant suffering from diarrhœa is unable to digest it. As a result it decomposes in the digestive canal, producing poisons most harmful to the patient. So long as the stomach and bowels continue to be irritated by undigested curds, germs, and poisons, the diarrhœa persists. Thus by the continued giving of milk, simple looseness of the bowels may be converted into a much more serious form of acute diarrhœa, or the diarrhœa may become chronic. Experience demonstrates that no cases do worse than those in which the mother or nurse cannot be made to understand the importance of withholding all milk food.

"Give Fluid Freely"

The second principle, *give fluid freely*, is quite as essential to the successful management of diarrhœa as is the withholding of all milk food. Infants bear the loss of fluid badly. In diarrhœa the body is rapidly drained of vital fluids, and if milk, which is nine parts water, is withheld, its place must be supplied by something else. Various fluids are useful for this purpose. First in importance is *water*, which should be freshly boiled, and may be given either warm or cold. Water is best given in small amounts at frequent intervals—from a few teaspoonfuls every fifteen minutes to a young infant, to several tablespoonfuls every half hour to an older child. In some cases, freshly prepared barley or rice water is well

borne, and may be given in small amounts at intervals of two or three hours. Plain boiled water should, however, be freely given between these cereal-water feedings, and in serious cases it is usually best to give nothing but water for at least the first twenty-four hours. If these directions concerning the giving of fluid are faithfully followed, the mother need have no fear that her child will starve; for it is lack of fluid and not lack of food which causes the marked prostration and other serious symptoms of diarrhœa.

"Cleanse the Digestive Canal"

If the instructions already given concerning the withholding of milk and the giving of water have been carried out, the third requirement in treatment has already been partially fulfilled, namely, the cleansing of the digestive canal. The vomiting and diarrhœa show that nature is trying to do this, and nature always guides aright. An old-fashioned way of helping nature is to give the child a dose of castor oil to clear away the irritating matter, and this is by no means bad treatment. Another excellent method is to wash out the stomach through a rubber tube, but this should only be done by an experienced person. The mother may accomplish much the same result by a method so sensible and simple that the average person will not use it; namely, by giving to the child every fifteen minutes by the clock just as much boiled water, warm or cool, as it can be prevailed upon to swallow. To each quart of water may be added, before boiling, a rounded teaspoonful of common salt. This solution, properly prepared and administered as directed, cleanses the stomach and upper bowel, soothing the irritated membranes just as the slightly salt tears wash out and sooth an inflamed eye. And the lower bowel should be washed out with a portion of this same solution, which, amongst doctors and nurses, goes by the name of "normal saline." This washing of the lower bowel with boiled normal saline solution is easily accomplished as follows:—

By far the simplest and safest as well as the cheapest apparatus for washing out the bowel of an infant consists of a small glass funnel and a soft rubber catheter, No. 12. They should first be cleansed in hot soap-suds, and the catheter attached to the funnel. Lubricate the catheter with clean oil or vaseline, fill the apparatus with warm saline solution to expel all air, holding the free end of the catheter on a level with the rim of the funnel, or pinching it tightly between the thumb and finger to prevent the solution running out. Once filled, the apparatus should be kept full, or air will be forced into the bowel. The mother or nurse will therefore require an assistant to hold the funnel and pour water into it from a jug while she inserts the soft rubber catheter into the back passage, gently passing it in while the water flows. The catheter may be passed as far into the bowel as it will readily go—three to six inches or more. When sufficient has been introduced, the water will cease to flow. The funnel may then be lowered, or the catheter withdrawn, the process being repeated until the water comes away clean. Some of the saline solution may then be left in the bowel to be absorbed.

“Keep the Child Warm”

The fourth rule to be observed in the treatment of diarrhoea is—keep the child warm. Just as chilling of the lower limbs is one of the most potent factors in the production of diarrhoea, so keeping the extremities warm is one of the most important points in the treatment of the disease. The treatment may be excellent in every other respect, and yet if the mother does not observe this rule, failure is almost inevitable. The attack either proves fatal or is transformed into chronic diarrhoea.

Warmth is life to the infant, and as the sick child has but little power of producing heat for itself, warmth must be artificially provided. The feet and legs should be warmed before the fire, hot flannels applied to the abdomen, or a hot-water bottle or hot brick wrapped in

flannel placed at the foot of the bed. A simple and successful method of keeping the feet and legs warm is to wrap them in a thick layer of cotton-wool, or in several thicknesses of soft flannel. It is also well to apply a flannel binder. Because of the danger of chilling, it is often advised that the bath be discontinued for a time. This, however, is not necessary except in severe cases, during the height of the attack. Ordinarily, benefit is derived from a hot bath properly given. The temperature of the bath should be 100° F., and there should be water enough to cover the child to the neck. The room should be warm and free from draughts. Have everything in readiness before proceeding with the bath. Then quickly undress and immerse the child in the warm water, continuing the bath for one to three minutes. On removing the infant from the bath wrap him at once in a large, warm towel, and dry him without exposing the body. Quickly slip on the night-dress, and return the infant to the warm bed. The most stimulating heating procedure which can be employed is the hot, normal saline enema, temperature 102° to 105° F. It is wonderful how quickly this treatment revives an infant showing marked signs of prostration or threatened collapse. Following this treatment hot fomentations may be applied to the abdomen; indeed, it is well to apply the fomentations two or three times daily during an attack of diarrhoea.

Diet after Diarrhoea

But one other question bearing upon the treatment of diarrhoea remains to be considered, namely, *feeding*. All the good that has been done in a given case through the application of the foregoing principles of treatment, may be quickly undone through a too sudden return to milk diet, or through other indiscretions in feeding. As has been already advised under directions for the giving of fluids, boiled water only should be given through the acute stage of diarrhoea, or at most only barley or rice water. It need only be added here that these cereal waters, if used

must be well cooked and freshly prepared—not more than six hours old when fed to the child. The length of time during which boiled water or these cereal waters are exclusively used varies from a few feedings in cases of simple diarrhœa to several days in severe attacks of summer diarrhœa or cholera infantum. At the end of this time, or when the motions have become decidedly less frequent and are more natural in appearance, it is safe to begin the administration of albumin water or whey. In some cases feeding with albumin water or whey may require to be continued for several days; in milder cases, for only a few feedings. Continued improvement in the motions warrants the addition to the whey of cream in gradually increasing amounts. Begin by adding one-fourth teaspoonful of cream to a feeding, increasing in small amounts, if all goes well, until a teaspoonful is being added. When the whey and cream mixture has been well borne for several feedings, the addition of top milk may be given, the amount being gradually increased as the child progresses. Should vomiting, diarrhœa, or other digestive disturbance appear, milk should again be withdrawn, albumin water or whey being substituted for a time. It occasionally occurs that in returning to milk diet condensed milk is better borne by the infant than fresh milk. If so, it may be given for a time, though its use ought not to be continued beyond a few weeks.

F. C. R.

Nightmare in Children

WHEN an apparently healthy child develops the habit of suddenly waking in the night, sometimes very soon after falling asleep, in other cases after several hours of sleep, and when this waking is accompanied by screaming panic, of which the child can give no explanation, it is small wonder that its parents should feel alarm. Anyone who has ever seen a small child in the throes of a well-developed attack of night terror will not easily

forget the pitiable sight, and it is hard to understand that there are people who endeavour to overcome this habit by harshness and punishments.

The condition is evidently one for other methods of treatment, but those methods cannot be properly decided upon until the attacks are traced to their cause.

When they occur in a nervous, "high-strung" child, whose fancy is easily excited by books or talk, they are not hard to understand; but when the victim is a well-fed little rosy animal whose healthy nerve-force is conspicuous through day-light hours, it becomes more of a mystery why sleep should be thus broken.

In the case first mentioned the child's nervous system is probably at fault. The child should be induced to play more and read less, and should be kept in the open air all day if possible. In the case of the other child, it is possible that the digestion is at fault, and that the attack is one of genuine indigestion nightmare—a thing which is sufficiently appalling at any age. The evening meal for all children should be very light and digestible, and should not include meat. After that meal it is best that the transit to bed should be swift and quiet. Most children do better without the tempting evening romp which is the practice in so many families, but which sends too much blood to the small brain, and thus not only sets up a cerebral excitement, but also draws the blood from the stomach, where it is needed for purposes of digestion.

"Bogy" or uncanny stories told by nurse-maids are the unpardonable crime, and any mother who suspects a servant of that offence should at once take measures to stop it.

Sometimes night terrors are due to some cause calling for medical treatment. It is always best that the family physician should be consulted.

It need not be added that bad air in the bedroom is sufficient to cause night terror in any one at any age.—*Youth's Companion*.

Colds, Their Cause and Cure

By Mrs. A. F. Haines

MORTAL man is indeed subject to many ailments of the flesh. Indigestion is probably the most common of all, but colds follow it as a close second. Because these are so very frequently met with, people too often dismiss them as of little real consequence. But this is wrong. We begin to sneeze violently, breathe with more or less difficulty, our eyes water, and we feel quite miserable generally, yet during it all we too often are heard to exclaim, when asked what is the matter with us, "Oh this is only a cold I caught the other evening. Don't worry yourself about it, I'll be over it in a day or two. Did you ever hear of a person dying from a cold?" And so in a pleasant way—that is, if we feel at all like being pleasant—we dismiss the subject, and go about our work trying to forget there is anything seriously the matter with us.

A sore throat usually accompanies a cold, and in some ways this is really a blessing to one, since it will be necessary—for a time at least—for him to curtail his eating, and dieting is one of the quickest ways by which a cold may be broken up.

When he had a cold, Dr. Page always cured himself by fasting from twenty-four to forty-eight hours. He tried the experiment of living on twelve meals a week. As long as he did this, he never caught a cold, but just as soon as he went back to his hearty three-meals-a-day plan, he usually succeeded in getting one right away, although he cured it promptly by going without food again for a day or so.

"Starve a fever; stuff a cold" is a familiar saying, yet one which is only half true. Too many seem to forget that a fever accompanies a cold, and so, if it is wrong to stuff a fever, it is equally wrong to stuff a cold.

Dr. Heald in his very useful little book on "Colds," says: "The bill of fare will probably require pruning. It may seem like taking an arm off to drop one meal a day, and to forego the use of meats, fish, sweets, pastries, etc., but to raise the vital resistance one must adopt a frugal, natural diet. The habit once established, the pleasure will be keener on the plain foods than it is now on the more elaborate diet; besides there will be the additional pleasure of the consciousness that an attack of cold is not constantly impending."

Someone may wonder why it is that he has a sore throat. Well, it is for this reason. A cold, if it begin in the head, is due to an acute inflammation of the lining membrane of the nose, this inflammation being caused by the effort which the mucous membrane makes to eliminate poisons which are found in the blood, centred in that part. Now this irritated, or inflamed, condition of the nose membrane extends later downward into the throat, occasioning a certain amount of soreness there. The soreness, however, which one experiences in the throat, though often due to a cold, may also be one of the first symptoms of some other more virulent form of disease.

Sometimes a person thinks he has "only a cold," whereas, in reality, he is becoming ill with measles, smallpox, typhoid fever, scarlatina, whooping cough or diphtheria.

Since colds are epidemic—one person after another in towns, neighbourhoods, and families becoming ill with them in quick succession—it is well to isolate, more or less stringently, all who have contracted them.

A cold should always be promptly attended to. If left to "take care of itself," the chances are that it will develop into consumption or pneumonia. Many a sufferer from tuberculosis has languished

for months on a bed of pain, simply because he had carelessly neglected what had seemed to him to be "only a slight cold." If he had gone to bed for a few hours when he first began to feel ill, he might have saved himself from months of future suffering. Many a promising person has sacrificed his life because of a criminal neglect to take care of his health. Colds yield quite readily to treatment, if it be given at the right time *The care of a cold is of vital importance.* Nevertheless most of us are too negligent concerning this matter. May the few words we have written, however, help us to be a little less careless.

The Causes of Colds

The predisposing causes of colds are wrong habits of life, such as, for instance, overeating, strictly sedentary habits with little or no exercise, the weakening of the resistance of the skin by a superfluous amount of clothing, and the too free use of meat, as well as other nitrogenous foods. "The exciting cause is general exposure of some kind—wet feet, draughts, sitting or standing in a cold place, when the skin is covered with perspiration." As "summer" colds are common also, it is probable that one can catch cold by exposure to heat as well as to cold and damp.

In order to escape colds one must see that his general health is not below par. To keep in as healthy a condition as possible he should always be careful about having his rooms well ventilated. There should always be a constant supply of pure, fresh air in them. It is necessary to exercise enough every day to get up a perspiration. When one has a cold, physical exercise is most essential since the body, when labouring under one, is burdened by a great quantity of waste material, much of which can be thrown off through the pores of the skin if we perspire freely enough. Exercise tends also to equalise the circulation within the body, drawing away blood from congested centres to other parts which have not a sufficient supply. Bed clothing and wearing apparel should be reduced to the

smallest possible amount compatible with one's personal comfort. And it must be insisted upon that the bowels always be kept regular.

The morning cold bath is an important agent in keeping the body fortified against colds. This is not hard to provide for, since the only things required are a basin of cold water and a towel. After the bath has been taken, the body should be well dried off and rubbed until it is aglow from the effects of the friction. After one becomes accustomed to cold water in the morning, he can leave off the hand bath, and begin to take the spray bath or plunge.

The bath seems God's own way of keeping the body in a healthy condition. Nor is man the only being that can enjoy it. Bird and beast seem to take as much pleasure in one, or more even, than do we. All of us have probably seen the little sparrows taking their morning bath in a shallow pool of rain water which the shower of the night before had left. Shrubs and trees and trailing vines seem too, to be greener, and flowers appear to have brighter colours after the raindrops have washed the dust from off them.

Treatment

When one first becomes aware of the fact that he has caught a cold, he can usually break it up by taking it in hand at once.

If he notices it first in the evening the best thing he can do is to take a hot foot-bath, at the same time drinking freely of hot water or a lemon drink, which should be taken on an empty stomach. The hot lemonade should contain no more sugar than is absolutely essential. All of this time the patient should be well wrapped up so as to avoid any exposure whatever, and ought to continue thus protected from draughts until safely tucked away in bed. While covered up here, some doctors recommend their patients to drink moderately of cold water since this starts a perspiration. In the morning a cold hand-bath should be taken.

If the cold has not yet been broken up, the same treatment—the hot foot-bath or full bath, hot-water drinking, etc.—should be continued the next evening, followed by the cold hand-bath again in the morning. When a person has a cold, it is most essential to his speedy recovery that the bowels be kept open. For this purpose, castor oil is perhaps the best cathartic that can be taken.

If a cold already has the start on one, though it may not be possible to break it up at once, its severity can be greatly mitigated by taking a laxative to put the bowels in good order, by exercising vigorously in the open air, by fasting, and by drinking freely of hot water. The hot foot-bath or full bath is also quite essential to a quick recovery.

And now, as we close our suggestions as to how to take care of a cold, we wish especially to impress upon those who may read this article that they should try to break one up just as quickly as it lies within their power to do so. *Colds must never be trifled with.*

“WHEN the average man has lived long enough to know how to live, he takes his departure; but it is not right. The world needs the service of developed minds. Stay young if you can be a power for good.”

“WHY don't they keep the streets a little cleaner?”

You ask with deep annoyance, not undue;

“Why don't they keep the parks a little greener?”

(Did you ever stop to think that “they” means you?)—*Selected.*

“WHEN the last word has been said about heredity, the practical fact remains that none of us can choose our physical grandparents. We are *here* with no chance to retouch the past or eliminate undesirable antecedents. On the whole, it would seem wiser not to spend too much thought on where we came from, but concentrate our energies on where we are *going*.”





“While Getting Well”

By ISABEL ECCLESTONE MACKAY

A LITTLE bird sits on my window-sill
And winks his eye at me and says: “Hello!
Sick, are you? Why, whatever’s wrong?
I’m never sick, you know!”

And, just at breakfast-time, in comes the Sun
To make queer wiggly patterns on the wall
And laugh and say: “Oh, lazy-bones, get up!
You are not sick at all!”

And when I shut my eyes I hear the brook
Calling and calling as it hurries by—
*I can’t lie still! I’m hot and mis’rable—
I’m ’fraid I’ve got to cry!*

The leaves just whisper, whisper all the time!
The little clouds all hurry by so quick!—
And nothing seems to care a speck about
A little child that’s sick!

—Oh! Here’s the Wind! How cool his fingers are!
He steals across the bed and feels my hands
And my hot head, and doesn’t say a word—
I think he understands!—St. Nicholas.



The Nervous Woman



THE nervous woman is a product of our modern civilisation with its hurry and worry. In the days of our great grandmothers the good dames reared large families and discharged their many duties happily and serenely. They seldom complained of *nervousness*, and *neurasthenia* was then unknown—two ailments from which the majority of modern women suffer at some time or other.

At the present time one seldom meets a serene woman. Most of us feel hurried and worried, and we look as we feel, carrying in our faces the signs of our inward unrest. Why should we run at such a frantic pace when we might walk leisurely and enjoy the landscape as we go? One often hears the remark that the days grow shorter as we grow older; but as a matter of fact the days have always been and probably always will be twenty-four hours long. Our days are just as long as the days of our great-grandmothers, and we certainly have no more to do than they, and most likely not so much. So let us do well and *calmly* what we can do, not fretting over what we cannot do.

It seems scarcely necessary to describe the nervous woman, for her name is Legion, and one can scarcely fail to recognise her. However, we may suggest a few of the most characteristic features.

Her face, as we have already said, looks anxious and worried, and there is often a frown between her eyes.

Her voice is high-pitched, and her words are hastily and impatiently spoken.

She walks hurriedly as though she were late for an appointment; in fact, she does everything in a hasty, worried manner.

If she is obliged to wait for a train, she paces the platform and frequently consults the clock as though this would hasten the train's arrival. If she misses a train she frets and fumes as though there might never be another.

If she is obliged to have a tooth extracted or undergo any unpleasant experience, she thinks about it and talks about it long before its actual occurrence. In other words, she "crosses the bridge" many times before she reaches it.

She oft re-lives the sad experiences of the past, and looks forward with apprehension to the future. She always expects the worst to happen, and makes the most of it if it does.

She often has attacks of the "blues" and indigestion, for mental depression and gastric disturbance usually go hand in hand.

Now how is the nervous woman to escape from the pitiable condition into which she has fallen?

First of all, she must help herself, for unless she determines to conquer her "nerves," the help of others is of no avail.

A Cure for Nervousness

The nervous woman must live in the sunshine and fresh air. If she cannot do

on a verandah or balcony. Here she may lie and look up at the stars, forgetting her petty trials in the immensity of heavenly spaces. Five hours' sleep in the open air is of more value than ten hours' sleep in a close, ill-ventilated bed-room. The nervous woman should spend at least eight hours nightly in refreshing sleep, and if she can avail herself of an hour's rest in the daytime, she should certainly do so. During waking hours there is a constant expenditure of nerve



GARDENING AND POULTRY-KEEPING ARE PLEASANT PASTIMES FOR NERVOUS WOMEN

this, she must spend as much time as possible out of doors. Pure air and sunshine are the best nerve sedatives. Drug remedies are not to be compared with them. Let the nervous woman leave her household cares and worries, and go out into field or bush where she may commune with birds and flowers. Her worries will vanish like magic, and joy and peace will come stealing into her heart. While the busy woman may be obliged to spend the greater part of her days indoors (she should at least have her windows open), she may spend her nights

energy, which can only be made good during sleep.

A proper amount of exercise is as needful as rest. Exercise quickens the heart action, deepens respiration, creates an appetite, invigorates the digestive organs, and promotes all of the vital processes. Walking, riding, swimming, and gardening are ideal forms of exercise. Housework, if properly performed, is also most conducive to health.

Another matter of extreme importance to the nervous woman is that of diet. Pure, wholesome food is absolutely essen-

tial to the production of good blood, and without good blood the nerves cannot be strong and steady. Since flesh foods contain varying amounts of irritating waste products, it is best that the diet consist chiefly, if not exclusively, of vegetable and dairy products. Mustard, pepper, spices, and other like substances are best omitted from the dietary as they are irritating to the nerves and other sensitive structures in the body. And what shall be said of tea? Doctors may disagree about some medical matters, but all doctors agree that tea is one of the most

stipation can usually be cured by careful regulation of diet, exercise and habits of life. If the condition does not yield to home treatment, a thorough course of massage, electricity and medical exercises will generally effect a cure.

And, lastly, the nervous woman must endeavour to maintain a healthful mental attitude, an attitude of hope and courage and good cheer. She must learn to distinguish between the essentials and the non-essentials in life. Many poor souls fret and worry over petty things which are of but little consequence as compared with the great things of life. We must just cease worrying about the small things, and cultivate more faith and trust.

E. S. R.



FATHER'S WAY OF TAKING EXERCISE

potent causes of nervousness in women. The active principle of tea acts as a whip to the tired nerves, making the user feel fresh for a little time. But after this short period of stimulation, the nerves again become unsteady, and the sense of nerve exhaustion increases until the body is afforded an opportunity to rest—or until another cup of tea is taken. The nervous woman, then, above all others, needs to discard tea, as this is one of her greatest foes.

She who would overcome nervousness must give due attention to certain other matters. Constipation must never be allowed to assert itself. Poisonous substances are absorbed from the loaded bowel which irritate the nerve cells and fibres, producing a condition of morbid excitability of the nervous system which the woman is unable to control. Con-

Baby's Muscle and How to Develop It

ONE of the well-meaning but foolish individuals who is engaged in revolutionising the world by his so-called physical-culture system, and is thereby inflicting rheumatism and nervous prostration on a lot of old men who ought to know enough to keep quiet instead of attempting circus stunts, tries to answer in a certain periodical a question as to how to train a year-old baby's muscle.

He soberly tells him to swing baby by hands and feet, and suggests other muscle-racking stunts for the helpless child.

Now the true method of exercise, for the baby as well as the grown person, is by activity, and the more interesting this activity is, the more beneficial and rapid will be the result.

Baby will develop his own muscle if he is given a chance. As a matter of fact, he is usually so swaddled up in clothes, bands, blankets, and mufflers that it is generally impossible for him to kick up his heels or swing his arms, while it is a real impossibility for him to turn over.

Dr. Page of Boston declares that many babies are made weaklings by being kept helpless on their backs, and by being compelled to sit up instead of being allowed to lie on their stomachs, in which position they quickly learn to creep, walk,

and to roll over and to handle themselves like active and healthy young children. The true objection to the method advocated by Dr. Page is that the very small baby placed face downward on pillows or cushions would bury his breathing apparatus and be suffocated.

This is what he says of his own experience:—

In the rearing of our five children, now eight to twenty, the plan herein indicated was employed. None of them was ever on his back, except incidentally, until sufficiently developed in strength to turn over himself. This would happen occasionally; but directly he would bellow until we returned him, as for a time he would not be able to turn himself.

None of the five but was creeping before three months; the first-born crept at seven weeks. By the sixth month they were creeping upstairs and backing down safely. The backing-down procedure demanded some special coaching at first, placing the hind legs for them a few times until they acquired skill and courage.—*The Healthy Home*.

When the Baby Cries

It is astonishing to observe how little imaginative insight most women bring to bear upon the crying of small infants.

The instructed modern woman knows that all babies must and will cry to some extent, and that it is a normal and healthy form of expression. At the same time,

and this is but natural, it is much easier to apply this theory to some other woman's baby. A human mother, whatever her theories, does not like to hear her own baby cry much. Although her beliefs are modern, her uneasiness is distinctly primitive. Crying is crying, and she does not take the pains to learn the "language of a cry;" therefore the crying baby is either fed, or rocked, or searched for a safety-pin.

This is not sympathetic treatment. A baby has a multitude of reasons for expressing distress, and is quite clever enough to vary its crying according to its reason. If adults were forcibly fed, or violently bounced up and down, or stripped and searched every time they grumbled, this would be a bad world to live in. Yet this is the treatment meted out to small babies who cannot talk back, or thump the table, or go out and bang the door.

It is the duty of each mother to

study her baby's cry as if it were a little foreign language. It is true, she will soon hear the cry which says, "Isn't it about feeding-time?" and the one that says, "I wish you would be more careful when you dress me," and the one that simply calls for human companionship; but she will also hear and learn to recognise many others.

The cry for food usually begins as a sort of fretful, peevish whimper, soon rising, as the baby's sense of outrage grows, to a loud, angry protest; but this cry is not in place except at mealtimes. Sometimes it means that a very smart baby is trying to enforce its will in spite of rules. In such a case the rules must,



LITTLE CHILDREN DELIGHT IN CARING FOR BABY

of course, be kept, but it is only fair to see if thirst is the trouble. A baby has just as much right to a drink of water as anyone else, and the drink is just as good for it.

Fretful crying with restlessness at sleeping-time generally means over-feeding; the baby is suffering from indigestion, and more food is not likely to be the remedy.

A loud cry, accompanied with squirming and drawing up of the legs, means some sort of pain in the abdomen, and no one could take the explosive cry of anger or fright for anything but what it is.

An incessant little "worrying" whimper often means fatigue and sleepiness. "Don't try to entertain me—just lay me down and shade the light."

Make a study of this little language, and save both yourself and your baby much wear and tear.—*Youth's Companion*.

A New Remedy for Whooping-Cough

A LAVATORY worker with whooping-cough, who happened to be generating hydrogen, noticed that a whiff of the gas relieved his symptoms. Preparing an apparatus, he generated pure hydrogen, and by inhaling it just before the coughing stage, could prevent the cough every time. The remedy was also effectual with his sister, who had whooping-cough in a severe form.

To Amend Illinois Marriage Laws

IT is proposed to incorporate in the marriage laws of Illinois an amendment providing that every application for a marriage license shall state under oath whether either of the parties is an imbecile, epileptic, of unsound mind, and whether either applicant has been within five years an inmate of any insane asylum or poorhouse, whether either is afflicted with tuberculosis, syphilis, or other transmissible diseases. No licenses are to be granted without this declaration and a physician's certificate.

"NIGHT air is the only air at night. Why shut out the clean night air, and breathe the dirty air of the house?"



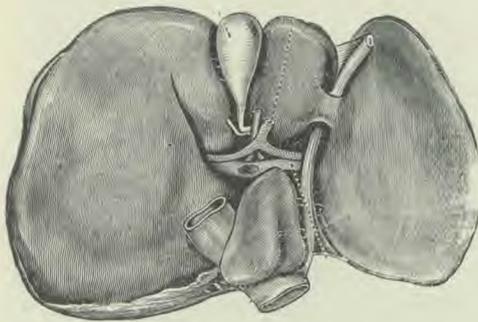


Massage

By E. R. Voigt

MASSAGE is not new; it was practised by the Chinese thousands of years ago. The term is probably derived from the Arabic *mass* or *mass'h*, to press softly. Massage was practised to a very consider-

able extent by the Greek athletes and by the Roman gladiators. the surface of the skin. The impression is quite wrong, and doubtless arises from the fact that so many "rubbers" practise their unskilled movements under the title of "masseur."



THE LIVER

Massage is not rubbing; it is a complicated science based upon an intimate knowledge of the parts and functions of the human body. This science can only be adequately administered by a medical man, one who has successfully graduated through those courses of study prescribed and taught at the various colleges of massage.

Objects of Massage

Briefly set forth, the following are the principal objects of massage:—

1. To maintain in healthy condition the various organs of the body.
2. To insure the proper distribution of nutriment to the various parts of the body.
3. To squeeze out waste matter from the tissues.
4. To assist in the elimination of waste matter from the body.

able extent by the Greek athletes and by the Roman gladiators.

In India massage is applied after prolonged exertion for the relief of fatigue, and among the indigenous races of South America passive movements are bestowed as an act of hospitality upon honoured guests or distinguished visitors.

Many persons are under the impression that massage consists merely in rubbing

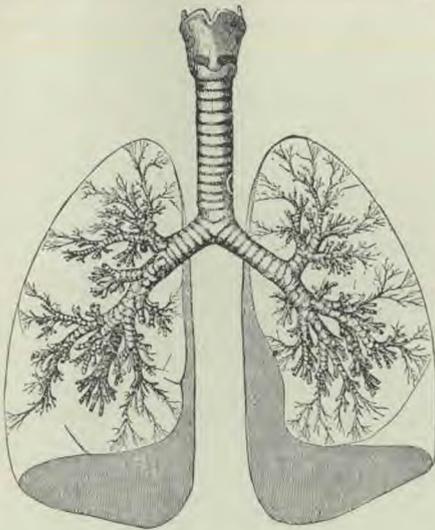
That one may fully comprehend the nature and importance of the foregoing movements, it is well to describe, in the

briefest and simplest manner, the functions of the principal organs of the body.

The food one eats, after undergoing processes of chemical change in the mouth—hence the importance of chewing well one's food—the stomach, and intestines, is carried by the blood, by way of the liver and lungs, to the tissues, where it is burned up in the production of energy.

The Liver

In one of its main functions the liver might be likened to a filter, where the food which passes through, deposits some of its impurities and poisons. At this point the folly of flesh-eaters, who eat the unclean liver of animals, will be apparent. As may readily be understood, the liver in its capacity as filter is apt, at times, to become clogged with impurities, and therefore incapable of performing its functions properly. It is here that the assistance of the masseur is highly beneficial. The liver can be felt under the fingers,



THE LUNGS

and the hard portion gently massaged until the clogging matter passes away.

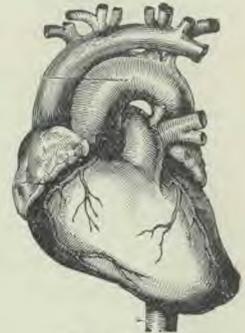
The Lungs

Though a man may live for weeks without food, yet if deprived of air he would die in a few minutes. The importance of a healthy condition of the nasal organs

and the lungs can hardly be over-rated. Careful massage will clear obstruction from the nasal tubes. Should the lungs be in a weak state, gentle exercise can be brought into play by means of massage until these organs regain, by natural process, their normally healthy condition.

The Heart

In order that the nutriment obtained from the food one eats may be placed at the service of every portion of the body, it must be properly circulated through the frame. The heart and the blood vessels are the mediums through which this function is performed, and it therefore behoves one to keep these vitally important organs in the healthiest and most efficient condition.



THE HEART

The strain on the heart that is induced by an impeded circulation, caused either by impurities in the blood and by the waste matter resulting from heavy or sustained exercise, may be eased and removed by massage. The circulation of the blood is assisted by firm and gentle movements of the hands along the *veins towards the heart*, and along the *arteries in an opposite direction*. These movements stimulate the flow of bad blood to the heart for purification and increase the flow of pure blood back from the heart.

Massage and Exercise

From the foregoing it will be seen that massage may influence strongly the good working of the vital organs of the body. The effects of massage in conjunction with physical exercise is even more marked, and its beneficial results more readily to be noticed.

As has been previously explained, food is "burned up" in the body in the production of energy. The exertion of a

muscle, the blinking of an eye, the throb of the heart, the act of thought—all necessitate the metabolism of nutriment in the body.

Now, there results from this "burning up" of nutriment in the body—just as there would from the burning up of a fire—waste matter. A portion of this



THE MUSCULAR SYSTEM

waste matter is deposited in the system, and if not eliminated by massage may cause rheumatism, gout, sciatica, etc.

It frequently happens that those who have been accustomed to a life of hard, manual toil, suffer, in later years, from rheumatism and kindred ailments. This is due doubtless to the inability of the body to get rid of the large amount of waste made by abnormally hard exercise. Careful massage is the remedy.

Massage for Athletes

The efficacy of scientific massage applied to athletics is apparent to anyone who may be conversant with the new training methods adopted by British athletes during the past few years.

Massage helps the body to lay up an adequate store of nutriment from which the athlete may draw his fund of energy. The muscles play an all-important part in athletics, and massage can impart a strength to the same that is impossible to obtain even by the most careful exercise and diet. By such manipulation the tendons may be strengthened; the muscles cleaned so that they act quickly and work easily one over the other; the joints lubricated by the oil glands; and the whole muscular system toned to a remarkable degree of health and fitness.

There can exist no longer any doubt as to the utility of massage as a natural cure for diseases and as a valuable means of obtaining and retaining the highest degree of physical well-being and fitness. Those who, like the writer, have made a study of massage and muscular movements have themselves been astounded at the remarkable results obtained by the practice of a good system. One is constrained to wonder how long it will be ere the importance of massage is recognised by the educational authorities and a simple course of self-massage taught in the schools. The soul should be clothed in a pure body.

Effect of Cigarettes on School Children

By C. Webster Wylam

In this scientific age theories are impracticable unless they are verified by facts. Many writers have asserted that cigarettes were "coffin nails" and the defenders of the tissue paper and so-called "Turkish tobacco" have pooh-poohed this proposition as absurd. After long research for something tangible to prove the pro and con of the attackers and defenders, we come across the following reliable facts that more than prove the disastrous results morally and mentally.

P. K. Lord, an educator of no mean calibre, gives the following facts as a result of a thorough, painstaking search in one of the public schools of New York numbering about 500 pupils. It was very noticeable that many of the boys were habitual cigarette-smokers. An investigation was ordered to ascertain exactly how far the smoking was to blame for the boys' inefficiency and low moral condition.

The investigation extended over several months of close observation of twenty boys known to be cigarette fiends. Twenty non-smokers were drawn by lot. The report represents the observations of ten teachers. The pupils investigated were from the same rooms in the same school; no guess work was allowed. Time was taken to get at the facts of the case on the twenty questions of inquiry—hence the value of the report. The ages of the boys were from ten to seventeen. The average age was a little over fourteen. Of the twenty smokers twelve had smoked more than a year and some of them several years. All twenty boys used cigarettes, while some of them also used pipes and cigars occasionally.

The following table shows the line of investigation and also the results:—

	Non-Smokers.	Smokers.
1. Nervous	14	1
2. Impaired hearing	13	1
3. Poor memory	12	1
4. Bad manners	16	2
5. Low deportment	18	1
6. Poor physical condition	12	2
7. Bad mental condition	18	1
8. Bad moral condition	14	
9. Street loafers	16	
10. Out nights	15	
11. Careless in dress	12	4
12. Truants	10	
13. Not neat and clean	12	1
14. Low rank in studies	18	2
15. Failed of promotion	72 times.	Twice.
16. Older than average of grade	19	2
17. Untruthful	9	
18. Slow thinkers	19	3
19. Poor workers or not able to work continuously	17	1
20. Known to attend church or Sunday-school	1	9

The following personal peculiarities were noticed in the smokers: Twelve of the cases had poor memories and ten of the twelve were reported as *very* poor;

only four had fair memories and not one of the twenty boys had a good memory. Eighteen stood low in deportment, only one was good, and none were excellent; seven were very low, being constantly in durance vile because of their actions. Twelve of the boys were in a poor physical condition, six being subject to sick spells and practically wrecks already. Eight were reported as being in a fair or good condition, but none was excellent.

“WHAT does it mean, papa, when the papers say a man died a natural death?”

“When a man died a natural death, Bobbie, it means that he died without medical assistance.”—*Selected.*

A CENTURY ago the average length of life in Europe was no greater than the average length of life in India to-day. Now the average duration of human life in India is twenty-three years; in Europe, owing to improved hygiene, it has become nearly twice as great.

GREATER LONDON, according to the provisional returns of the census taken in April, has a population of 7,252,963, an increase of 671,561 during the last ten years. The increase, however, is in the outer ring of territory, showing that the people are moving from the crowded centres. In the old City of London and the boroughs immediately about it the population is less than it was a decade ago.

If a child is ailing and school work is a burden, let not the parent hesitate. The world is not suffering from the need of good spellers, clever mathematicians, good oral readers, or people well versed in geography, history and natural science. What the world needs to-day is “healthy” people, “happy” people, “honest” people, people ambitious to do their work a little better every day. The world needs people who love both work and play.



THE HOUSEKEEPER

Hints for the Summer Table

IN summer it is often possible to spend more time on the table and less on the food, with profit to the one who has to cook and to those who have to eat. With the rise of the mercury in the thermometer there is likely to be a corresponding loss in the appetite of the family, which is more disheartening to the housekeeper than the increased discomfort in getting the meal. The strongest stimulus to the appetite comes through the senses of sight and smell; an attractively laid table, with a vase of fresh flowers or tempting fruit, will do much to arouse anticipation and stimulate the jaded appetite for the coming meal.

Move the table to the coolest spot within reach of the kitchen, or serve a meal occasionally on the verandah. If a small table on rollers is used, and all formal service and all unnecessary dishes are dispensed with, these meals will add no extra burden in preparation.

As for the food itself—the simpler the better. The lessened need at this time for maintaining the body heat permits a lighter bill of fare; but this bill of fare must be more stimulating both to the appetite and to the digestion. Nothing can meet this requirement so well as fresh fruits and green vegetables, with which the markets are filled. Their refreshing acids tempt the appetite; their varied supply of mineral matter is needed for maintaining the alkalinity of the blood; their large proportion of fibre gives the needed ballast and stimulus in

digestion; and last of all, the water contained in them is healthful.

Cooking tends to take away much of the fresh, delicious flavour of fruits and vegetables, usually tends to detract from their appearance, and certainly robs them of a good part of their valuable minerals. Many times these fruits and vegetables, especially vegetables, are spoiled by overcooking. For the vegetables with a higher per cent. of water, such as cab-



"SERVE A MEAL OCCASIONALLY ON THE VERANDAH"

bage, cauliflower, turnips and green corn, steaming is a much better method of cooking than boiling, for in steaming there is not so much loss of flavour or material, and there is a decided gain in appearance.

Skilfully used, fruits and vegetables may be made to furnish a large part of the three meals each day. Melons, berries, peaches, apples, pears, grapes or plums—fresh or cooked—may begin and end the breakfast, with a ready-to-serve cereal in between. A breakfast of this kind is quickly prepared, and for many persons is enough.

If a warm cereal is preferred, make it ready the evening before, and waste no unnecessary time and fuel in its preparation. In selecting the cereals for summer use, choose the lighter ones, such as wheat, barley and rice rather than oats and corn—which are richer in fat and do not keep so well.

For the noon luncheon or the evening supper make a plate of good bread and butter sandwiches of various sizes, and of contents to suit all tastes. Add a pitcher of cold milk or lemonade, and a dish of fruit, and serve it wherever the coolest breeze is to be found.—*Selected.*

The Foreign Girl and English Idioms

To the lengthy list of tribulations for which the "green" domestic is responsible, a long-suffering house-wife contributes two experiences. Freda was charged to notice just the minute the kettle of preserving peaches boiled up. "Now don't forget. I shall be here in the dining-room, waiting," was the parting injunction.

A few minutes later, when the fruit was simmering to a candied mass, the mistress hurried in.

"O Freda," she exclaimed, "I told you to watch—"

"And I did, mees," the girl hastened to assure her. "When they boiled over it was just a quarter past eleven, to the very meenit!"

Some time after, Freda was left to watch the browning of the meringue on a luscious lemon pie that was to be the finishing touch to an especially delectable dinner.

"Now keep an eye on that, Freda," the anxious mistress cautioned, leaving the kitchen with some misgivings. She returned to find the oven door several inches ajar, Freda squatting before it like a dervish, and the meringue pale, sodden and leathery.

"O Freda," she almost sobbed, "how could you be so careless? See, it's ruined!"

"But you told me, mees," the girl protested, genuinely distressed, "you told me keep eye on it. How could I keep eye on it through such iron door?"—*Selected.*

Dahlias and Potatoes

By a kind of horticultural irony the dahlia, that popular flower that so often forms a conspicuous display at flower shows, has a very prosaic parentage. It has been developed from the Mexican tubers introduced about one hundred and twenty years ago by the Swedish naturalist, Dr. Dahl, for the purely commercial purpose of supplementing the potato! The doctor's scheme did not meet with favour, and the dahlia dish soon disappeared from British tables, but the gardeners of the Old Country at once perceived the great potentialities of the flower, and accordingly proceeded to produce the double dahlia and other delightful floral fantasies. The tubers of the dahlia, too acrid for most tastes, are still eaten in some parts of France.—*Scientific American.*

To Keep Free from Flies

"KILL the first fly." Considering that one female fly can bring into being several millions of the pest in one summer, it would seem a good job to kill that first one.

If the first and its immediate followers are let live and the house becomes overrun, there are several suggestions for ridding the rooms of them. One course is to burn pyrethrum powder in a room. This benumbs the flies, and they fall to the floor and can be swept out.

From the American Civic Association at Washington comes this hint: Drop twenty drops of carbolic acid on a hot iron; the vapour kills the flies. Sticky fly-paper has both good and bad qualities. It does trap some flies. But those that get their feet coated with the adhesive matter are likely to return to their filth heaps prepared to carry back to the house

added quantities of disease-bearing matter sticking to their feet. Fly traps do their part, but Dr. C. St. Clair Drake, of the Chicago health department, says the insects are cautious.

"The flies soon learn to be wary of traps," Dr. Drake says. "Those that have had any experience with them cannot be caught, and shortly a tribe of flies too shrewd to be trapped might be evolved. The insects also avoid the sticky fly-paper after one experience. They are crafty little fellows, and the instinct of life is as strong as in superior beings."

Various poisons are suggested, the best of which, the doctors say, is formalin in water. Put a spoonful of the chemical into half a cup of water and leave it exposed in the room, and the flies will do the rest.

In passing, it is worthy of note that this insect, with its love for odours that offend the nostrils of man, has a strong aversion for scents which the human likes. This has given a hint for still another prevention, of minor worth. Aromatic plants in rooms and at windows act as repulsives. Such plants, then, have a double value in sick-rooms: they are pleasing to the sufferer and discourage the fly that, with evil purpose, looks through the open window.—*Technical World Magazine*.

Dressed in the Latest Style

THE family man was passing through the market when a sign attracted his attention. It read: "Poultry Dressed in the Latest Style."

"What do you mean by poultry dressed in the latest style?" he asked of the marketman.

"Why, are you blind?" said the dealer, pointing to the plucked chickens, with their legs tied. "Don't you see they are all hobbled?"—*Yonkers Statesman*.

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

Healthful Cookery

By Christina Manson

WHAT to cook, and how to cook it, are two puzzling questions to the busy housewife. The following recipes may be found useful. We can recommend them as both hygienic and appetising, and they will doubtless be highly appreciated by those members of the family who are fond of sweets.

Hygienic Pound Cake.—One pound each of butter and sugar, nine eggs, one and one-quarter pounds of flour, and two pounds of fruit, essence. Beat butter and sugar together, add the eggs and beat well. Add flour and two pounds of fruit.

Madeira Cake.—Make as in above recipe one and one-half pounds of flour, no fruit; when ready for the oven, put thin strips of citron peel on top.

Date Rolls.—Take the wheat-meal roll mixture, knead well, roll into strips three inches wide, take some whole dates, stone, and place lengthwise one after another the whole length of the paste. Roll together and cut into three-inch lengths, and bake the same as other rolls.

White Flour Gems.—Two eggs, three cups of milk, four cups of white flour, one-half teaspoonful of salt. Beat eggs well, add the milk and two tablespoonfuls of cream, then whisk in the flour, stirring briskly all the while, and add salt. Pour into piping hot gem-irons and bake in a moderate oven three-quarters of an hour.

Maize-Meal Gems.—Two eggs, three cups of milk, one-quarter cup of cream, two cups maize-meal, two cups white flour. Mix as in above recipes and bake in hot pans.

Gluten Layer Cake.—Five eggs, one cup of sugar, one-half cup Gluten, two tablespoonfuls of flour, one tablespoonful of lemon juice. Beat the whites to a stiff froth, cream the yolks and sugar, add the lemon juice, and fold carefully into the whites. Mix flour and Gluten well together and fold into eggs. Pour into two sandwich tins and bake fifteen minutes, and use any filling such as jam, cocoanut, raisin, walnut, or lemon.

Olive Oil Pastry.—One-half cup of oil, one and one-half tablespoonfuls of water, four cups of flour, one-half cup of water and a pinch of salt.

Beat the half-cup of oil with one and one-half tablespoonfuls of water; add to the flour, mix well, and add the half-cup of water. Roll out thin for pies, etc.

Chats with the Doctor

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

28. Bleeding Ulcer of the Stomach.—“What diet and treatment would you advise for bleeding ulcer of the stomach in a patient aged 45? Would you recommend the use of pills containing pepsin, bismuth, iron, nux-vomica, capsicum, ginger and soda?”

Ans.—The first indication for treatment in ulcer of the stomach is rest; and unless the raw surface can be kept free from the irritation of food and acid gastric juice it will likely prove very slow in healing. Complete rest of the stomach is often necessary for perhaps ten days or a fortnight. During this time recourse is had to feeding by the bowel. The plan of procedure consists in first thoroughly cleansing the colon with warm normal saline solution, after which the following nutritive enema is slowly introduced by means of a glass funnel and a long, soft, rubber rectal tube passed six or eight inches into the bowel: One or two eggs, one ounce of bromose or malted nuts, four ounces of milk, and a pinch of salt. Beat all thoroughly together. Two such feedings a day can usually be retained by the patient. As a further aid to nutrition olive-oil inunctions should be given daily. While this treatment is being employed, absolute rest in bed is the routine practice. At the end of ten days or a fortnight careful feeding by the mouth may be resumed. The first food given by the mouth should consist of albumin water. This is prepared by stirring the whites of two eggs and one ounce of milk-sugar into a pint of warm water. Four ounces of this solution is administered every two hours, the quantity being gradually increased as the patient's condition improves. To the albumin solution a small quantity of thin cream may be added so that on the third day the mixture consists of cream, one ounce; egg albumen, two ounces; sugar of milk, one ounce; and

water sufficient to make one pint. Of this four to six ounces should be administered every two or three hours. By the fifth day two ounces of cream may be added, and from this time on the diet is gradually increased as the patient's condition permits until peptonised milk, beaten egg in milk, junket, boiled zwieback and milk, and other similar foods can be taken. For the relief of pain, fomentations to the abdomen will be found most useful. The pills described are contra-indicated.

29. Colon Cleansing: Hygienic Use of the Enema.—“In some of the English and American health-culture magazines, the occasional use of the enema is strongly recommended as an excellent means of gaining and retaining the health. Recently in one of the magazines there was an article by a lady writer advising the weekly use by girls and young women of a warm soap-and-water enema in order to keep the bowels in a clean and healthy condition. As a reader of LIFE AND HEALTH I should be glad if you would state in ‘Chats with the Doctor’ if you agree with this advice. The use of the enema as a means of internal cleanliness appears to me to have a good deal to be said in its favour, and judging from the magazines referred to it seems to be used with advantage by a large number of health reformers.”

Ans.—The question asked by our correspondent is a most interesting one, which raises for consideration the entire subject of intestinal intoxication. Much attention has recently been given by scientists all over the world to the cause, consequences, and treatment of intestinal fermentation and putrefaction. Chief amongst these investigators is, perhaps, Professor Metchnikoff of the Pasteur Institute, who has gone so far as to suggest the surgical removal of the large intestine because of the rôle it plays in retaining putrefactive substances and microbes which poison

the entire system, and so cause numerous diseases.

That the colon should be kept clean there can be no question. There are differences of opinion, however, as to the method to be employed to accomplish this desirable result. Various methods of disinfecting the large intestine have been suggested and practised. These range from Mechnikoff's radical remedy of complete surgical extirpation of the colon to the harmless sour-milk cure. In order to decide upon a rational and effective method of cleansing the colon, one must have an understanding of the causes and sources of intestinal poisoning. The harmful micro-organisms that flourish in the colon are derived from various sources. They are introduced with impure food and air, in the latter case chiefly in those who have formed the bad habit of mouth-breathing. Putrefactive germs also abound in mouths containing decayed teeth. Unwashed hands, unboiled milk, and innumerable soiled and germ-infected articles, such as coins placed between the lips or in the mouth are common sources of infection.

More important even than the sources from which poison-producing microbes are derived, is the way in which they are encouraged and caused to flourish in the colon. Putrefactive germs cannot multiply without suitable food and favourable conditions. Such food and conditions are provided in the large intestine by the too free use of protein food, such as meats of every description, eggs, and various other high-protein foods. Those substances which quickly decompose outside the body undergo a similar change in the large intestine with resulting formation of toxic substances. Add to the mischief-making high-protein diet the exceedingly common condition of constipation, and the result is certain to be intestinal fermentation, putrefaction, and intoxication.

From these observations it will be seen that intestinal cleanliness, or the want of it, must always be chiefly determined by what goes into the mouth. It is for this

reason that this magazine stands for the principle of total abstinence from things which pollute the blood-stream. As blood is formed from food and drink these must certainly be pure if the mouth, breath, stomach, intestines, and, in a word, the entire system is to be kept sweet and clean. It is impossible to imagine, and far less possible to possess, a clean alimentary canal while substances which readily decompose are being continually eaten. By way of contrast we can understand how the free and regular use of disinfectant, antiseptic foods, such as fruits, vegetables, cereals, and in some cases lactic-acid milk, results in a clean and healthy condition of the stomach, small intestine and colon.

While the prevention of stasis of food wastes in the colon is important, and while the use of the enema is one means of preventing such stasis, it is rather too much to expect that the occasional flushing of the last few feet of the alimentary canal can possibly bring about a high degree of internal cleanliness. Though a most useful therapeutic measure in the treatment of numerous ailments, we would therefore advise that the enema be not too strongly recommended as a hygienic measure. Its occasional use would probably do no harm in the case of a healthy girl or woman. On the other hand, the enema is no more needed by such persons than is an occasional hot blanket pack or other hydropathic procedure. While not needed therefore by those in health there are large numbers of persons who suffer from intestinal stasis who would no doubt derive benefit from the occasional use of the enema.

30. Hernia, or Rupture.—"Will you kindly in your next issue of LIFE AND HEALTH explain cause and treatment of rupture? Can it be cured without an operation?"

Ans.—This question was quite fully answered in the April-May LIFE AND HEALTH, but because of its importance we will refer to it again.

The usual cause of rupture is a strain which tears or separates the abdominal

muscles, so producing an artificial opening in the abdominal wall through which some portion of its contents may escape. The lump or swelling which appears beneath the skin consists of a knuckle of bowel, a portion of omentum, or both.

The cure in such a rupture consists in the careful replacing of the abdominal contents and obliteration of the unnatural opening by the sewing together of the muscles. When the operation is properly performed the cure is permanent.

Another remedy which has proven successful in the case of small, recent ruptures is exercise. Special exercises are taken which strengthen and thicken the separated muscles, so drawing their edges together, until the opening is closed. This treatment, however, is unsuccessful in the great majority of cases. The wearing of a truss is not a cure, though it occasionally results in cure through the setting up of inflammation and adhesions which bind the muscles together.

31. Memory Training; Meal Hours; Clement's Tonic.—"Could you kindly give me any information on the following questions through *LIFE AND HEALTH*? Are you acquainted with the methods of the Pelman System of Memory Training? Do you recommend this system for strengthening the memory?"

Ans.—The Pelman System of Memory Training has proven a useful system in many cases. One ought not, however, to expect too much of a memory system. Then, too, the term "memory" requires a certain amount of explanation. It may mean the ability to recall certain facts or relations. For example, that a certain battle was fought on a particular spot at a certain time; or it may refer to the power of recalling to the consciousness certain states of feeling that have been lived through and experienced. Or, again, it may refer to the power of holding pictures or scenes in the imagination. Thus one who has a good visual memory can recall with great exactness any ordinary occasion at which he was present. After a dinner party he can recall the appearance

of the guests, the food and table decorations in detail. Or he will be able to enumerate the articles in a shop window into which he has merely glanced in passing. These various forms of memory are all susceptible to cultivation, and a good memory system is an aid in the education of the mental faculties involved. There are other factors, however, which greatly influence one's power to recall past events, experiences and scenes, chief of which is the condition of the nervous system. In neurasthenic conditions, that is, conditions in which nervous energy is more or less lacking, the memory is often much impaired. So also in digestive disorders and intestinal intoxications due to fermentation, putrefaction and stasis of alimentary substances and excretions in the food canal. To expect a memory system to improve the memory while such conditions remain unaltered is to expect far too much. In other words, the causes of poor memory should first be ascertained and corrected. When this has been done, the memory system has a fair chance.

2. "I take three meals a day on six days in the week, but on Sundays I have a later breakfast and omit the midday meal. Is this a wise plan, as I am trying to strengthen a rather weak digestion?"

Ans.—This is not at all a bad plan, though it is the converse of the usual practice, which is to take several extra courses on Sunday. No doubt the average person would be benefited by omitting one of the three regular meals on at least one day of the week. Another plan which sometimes acts very well in the strengthening of a weak digestion is the daily omission of the evening meal, or the taking of a light evening meal. This plan gives better results as a rule than the no-breakfast plan. The number of meals which can be well digested in a given case obviously largely depends on the quantity, variety and character of the food eaten. Thus three small or moderate meals of simple food will tax the digestive organs less than two over-generous mixed meals. With due attention to your diet as a whole, and particularly to

the factors mentioned, and also to thorough mastication, the plan you are following at present should yield satisfactory results.

3. "Do you know anything about Clement's Tonic? If so, is it of any value as a tonic?"

Ans.—Notwithstanding the glowing testimonials appended to advertisements of this tonic, its actual value is nil. It is not in the true sense a tonic, but rather a mere "pick-me-up." A cool shower or sponge bath every morning is not only cheaper but better in every way than this or any other bottled "tonic." Other tonics not to be excelled which possess the merit of cheapness are pure country air and outdoor living.

32. Cold Hip-Baths; Religious Publications.

—"Would you kindly advise me in your journal whether the cold hip-bath will do me harm? I take it morning and night, remaining half an hour in the bath. I do not feel cold while in the bath, but often have pains in the abdomen. It is for this reason I would like to know if the bath will injure me. I always feel well after the bath."

Ans.—The cold hip or sitz bath as taken by our correspondent is no doubt doing her much harm. The pains felt in the abdomen are an evidence of congestion of the pelvic organs due to the prolonged action of the cold water on the nerves and blood-vessels of the skin. A continuation of the baths would almost certainly result in inflammation and disease of the pelvic organs. There are methods of taking cool sitz baths which render them beneficial in certain disease conditions. These methods consist in the use of warm water before the cool, and the immersion of the feet in hot water. The duration of the warm or hot sitz may then be from three to eight minutes, after which the cool sitz bath may be continued for about the same length of time, or longer if the water is but tepid (90-96° F.). So far as we are able to judge from our correspondent's question she was not ailing in any way before commencing the

sitz baths. If that be the case she does not require sitz baths at all, though they will do her no harm if taken as we have directed. The feeling of well being experienced after the cold sitz bath would follow to a greater extent the cool sponge or shower bath.

2. "Kindly mention prices, and name publishers, of the religious books, 'Great Controversy' and 'Thoughts on Daniel and the Revelation.' Is the latter book procurable in Danish?"

Ans.—Full information concerning these publications may be obtained from the Signs Publishing Company, Warburton, Victoria.

33. Thread-worms.—"Would you through the next issue of LIFE AND HEALTH give a cure for thread-worms?"

Ans.—Thread-worms are fairly common in children, but not so common as many mothers seem to think. One is not justified in concluding that a child has worms because of picking at the nose, or other similar symptoms. A fairly common symptom of thread-worms is more or less constant irritation and itching at the opening of the bowel. This itching is usually most troublesome soon after the child goes to bed, and comes on about the same time every night. The only evidence, however, which justifies one in concluding that a child has worms is the detection of the worms in the motions. It is important to understand that thread-worms are not a disease in themselves, but rather a symptom of an unhealthy condition of the large bowel. Thread-worms are never found in a healthy bowel. The condition required for thread-worms is a catarrhal inflammation of the colon which provides swollen folds of bowel-lining coated with mucus or slime. In these folds the thread-worms lodge, except the few which are expelled along with many tiny eggs and much slime when the bowels act. These eggs, which are too small to be seen with the unaided eye, need only to be carried to the mouth by the hands, on food, or in water, and swallowed in order to hatch and produce

more worms. Thus a child may repeatedly re-infect himself or infect others. The worms themselves are about one-fourth of an inch in length. They resemble bits of small white cotton, and can often be seen wriggling about in the recently passed motions of their host.

In order to get rid of thread-worms the bowel must be put into a healthier condition through careful attention to the child's food and habits of eating. Only wholesome, nourishing, easily-digested food should be eaten at suitable times. Constipation and slimy discharges soon give place to healthier motions under well-managed dietetic treatment, and the way will then have been prepared for the expulsion of the worms themselves. This is best accomplished by the daily injection of common salt solution of the strength of one ounce to the pint; or by infusions of quassia or garlic. Or three injections of the following solution may be given, one every second night:—

Santonin, one grain; oil of turpentine, one teaspoonful; thin cooked starch, one teacupful.

This should be slowly introduced into the bowel through a funnel and catheter, and should, if possible, be retained five or ten minutes. After the expulsion of this solution the bowel should be cleansed

with plain water to prevent the absorption of the drugs in case all has not been discharged. If quassia infusion is used, it should be prepared by soaking a small cupful of quassia chips in warm water for several hours; then strain and inject into the bowel. The itching and irritation due to thread-worms is best relieved by the external application of resinol ointment after cleansing with soap and water.

34. Meat Preservatives.—"Would you advise me through your LIFE AND HEALTH journal whether the use of saltpetre on meat is injurious to health or not?"

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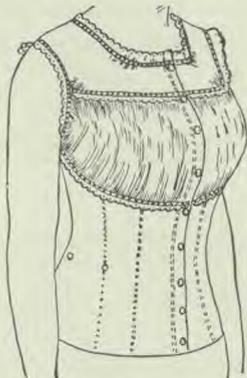
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